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MONTANA DEPARTMENT OF TRANSPORTATION TREATED TIMBER BRIDGE SAMPLING REPORT

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MONTANA DEPARTMENT OF TRANSPORTATION TREATED TIMBER BRIDGE SAMPLING REPORT

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JUN 2 6 2002					

DEMCO 38-301

DEPARTMENT OF HIGHWAYS

STAN STEPHENS, GOVERNOR

2701 PROSPECT AVE.

STATE OF MONTANA

HELENA, MONTANA 59620

Timber Bridge TCLP

Recently, the Montana Department of Transportation (MDT) conducted a limited study to evaluate the regulatory status of treated wood wastes resulting from the decommissioning of timber bridges. Findings from that study indicate that there may be instances where copper, chromium, and arsenic (CCA) treated wood wastes will require management and disposal as hazardous wastes. Enclosed is a copy of the MDT report for your information.

This MDT study was intended to screen creosote, CCA, and pentachlorophenol (PCP) treated wood waste to determine if these wastes may be classified as hazardous wastes pursuant to the Toxicity Characteristics (TC) Rule (55FR 11798, March 29, 1990). Due to the sites selected, 20 samples of creosote,treated wood and 1 sample of CCA-treated wood have been characterized to date. Results indicate that management of creosote-bearing wood waste as a hazardous waste does not appear to be necessary given the current TC constituents list and their regulatory levels. However, the results from the one CCA sample indicates caution may be advisable regarding waste management practices for CAA-bearing wood wastes.

We believe that this study has developed an adequate data base to support a decision to manage creosote-bearing wood wastes as solid wastes unless there is substantial modification to the TC rule. Information obtained on CCA-bearing waste indicates a need for follow-up evaluations and at least an interim management practice to identify and characterize CCA-bearing wastes prior to disposal. Screening information is yet to be developed for PCP-bearing wastes. I would appreciate any information that your agencies have developed on this potentially troublesome issue.

Edrie Vinson

Edrie L. Vinson, Chief
Environmental & Hazardous Waste Bureau
Montana Department of Transportation

ELV:D:ENV:92.mb

AN EQUAL OPPORTUNITY EMPLOYER

ACRONYM LIST

CCA	Copper, Chromium, and Arsenic Wood Treatment Solution
CLP	Contract Laboratory Program
EPA	United States Environmental Protection Agency
HSWA	Hazardous and Solid Waste Amendments of 1984
MDHES	Montana Department of Health and Environmenal Sciences
MDT	Montana Department of Transportation
mg/L	milligrams per liter
PAHs	Polynuclear Aromatic Hydrocarbons
PCP	Pentachlorophenol
RCRA	Resource Conservation and Recovery Act
TC	Toxicity Characteristics
TCLP	Toxicity Characterisitics Leaching Procedure

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1.0 INTRODUCTION

This report has been prepared by MSE, Inc., for the Montana Department of Transportation (MDT). Its purpose is to document the results of an investigation into the regulatory status of wood wastes from timber bridges removed from service in the Montana Highway System. The investigation was conducted pursuant to the provisions of Task Order 1 to the General Agreement for Environmental Services between MDT and MSE dated June 24, 1991. MDT's contract administrator for this agreement is Ms. Edrie L. Vinson, Bureau Chief, Environmental Bureau. MSE's project manager for this investigation is Michael Rubich.

1.1 Objectives and Scope

The overall objectives of the study were to assess if wastes from timber bridges may be classified as hazardous wastes and provide MDT with any appropriate recommendations for further action. A secondary objective was to develop sampling procedures and repair methods that would avoid impacts to bridge structural integrity should a wider sampling campaign be initiated for in-service bridges.

The scope of this investigation was limited to four bridge structures and a waste stockpile resulting from the decommissioning of several bridges around Simms, Montana. Four different samples were taken at each site. The combination of sites and samples allows an assessment of the influence of age, material component, preservative type, apparent preservative concentration, and sampling method on the hazardous waste determination.

1.2 Acknowledgements

Contributions to this study by Edrie Vinson, John Walsh, Dave Johnson, Bill Fullerton, and Dirk Roberts from MDT are gratefully acknowledged.

2.0 BACKGROUND

Approximately 1,600 bridges in the Montana State Highway system are constructed of wood. Use of these timber bridges dates to the beginning of the highway system within the State, with the age of in-service structures varying from relatively new to over 50 years old. It is likely that most, if not all, of the wood materials in these bridges have been subjected to treatment with chemical preservatives since preservative wood treatment has been a common practice for more than 100 years[1].

Several types of preservative chemicals are used on wood products, most commonly, wood is treated under pressure with either creosote, pentachlorophenol (PCP) dissolved in petroleum, or water solutions of copper, chromium, and arsenic (CCA). These methods penetrate the preservative into the wood product to the depth of 1 inch or more. These chemicals act, through their inherent toxicity, to preserve the wood by inhibiting the activity of decay organisms and other organisms that degrade the strength of the wood. It is probable that all three of the common preservative treatment methods have been employed on the various wood materials in the many timber structures of the Montana Highway System.

In 1976 with the passage of the Resource Conservation and Recovery Act (RCRA), the United States embarked upon the most ambitious regulatory program for hazardous waste of any country in the world. It is now national policy that hazardous wastes will be treated, stored, and disposed of in a manner that minimizes the present and future threat to human health and the environment. This policy has been implemented by the U.S. Environmental Protection Agency (EPA) and, in turn, by the Montana Department of Health and Environmental Sciences (MDHES) through a complex series of regulations issued under the authorities of RCRA, the Hazardous and Solid Waste Act (HSWA) of 1984, and the Montana Hazardous Waste Act, respectively.

These hazardous waste regulations are designed to provide "cradle to grave" control of hazardous waste by imposing management requirements on generators, transporters, and owners and operators of treatment, storage, and disposal facilities. These requirements are backed by significant enforcement powers at the Federal and State level. For example, whenever EPA determines that any person is violating Subtitle C of RCRA, it may issue an order requiring compliance or it may seek injunctive relief through a civil action filed in a U.S. court. Regardless of whether a person has been

served a compliance order or not, a civil penalty of up to $25,000 per day for each day of the violation can be assessed. RCRA also imposes criminal penalties of up to $50,000, 2 years imprisonment, or both, for persons who knowingly commit certain violations. In addition, the statute also creates a crime of "knowing endangerment" where conviction can result in a fine up to $250,000 and imprisonment up to 15 years[2]. At the Federal level, persons in both the private and public sector, including those having management responsibility, have been pursued under the civil and criminal sections of the statute. While the range of penalties is not as severe, Montana's Hazardous Waste Act also provides for civil and criminal response.

As the owner of treated timber bridges, MDT finds itself confronted with a serious regulatory issue regarding its bridge maintenance program. When MDT removes a treated timber bridge from service, some of the material is salvaged and recycled, and some of the material is waste. MDT becomes the "generator" of that waste as defined in RCRA. Further, the waste falls within the definitions of a "solid waste" in section 1004(27) which states:

> The term "solid waste" means any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous materials resulting from industrial, commercial, mining, and agriculture activities and from community activities but does not include solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923). (Emphasis supplied.)

As a generator, MDT has a direct obligation under the statute to determine whether any of their "solid wastes" are hazardous wastes as defined in RCRA.

Treated wood from timber bridges potentially comes under jurisdiction of RCRA through the Toxicity Characteristics (TC) Rule 55 FR 11798 dated March 29, 1990. Essentially, a solid waste may be determined to be a hazardous waste by being specifically listed in the regulations as a hazardous waste or by exhibiting hazardous characteristics. The TC Rule identifies 25 organic chemicals, eight inorganic chemicals, and six pesticides as constituents regulated under RCRA. A procedure known as

the Toxicity Characteristic Leaching Procedure (TCLP) is used to make the toxicity characteristic determination. When this procedure is used and any of the regulated constituents are found in concentrations greater than the regulatory level, the waste material is considered to be a hazardous waste and is regulated under subtitle C of RCRA. Table 1 identifies the regulatory constituents along with some other reference information for identification and comparison[3].

As previously stated, PCP, creosote, and CCA are the most commonly used wood treatment chemicals. Pentachlorophenol, arsenic, and chromium are regulatory constituents listed in the TC Rule. One of the degradation products from PCP is 2,4,5 Trichlorophenol which is also a regulatory constituent. Creosote is a complex mixture of at least 200 individual compounds. The greatest percentage of creosote compounds consist of polynuclear aromatic hydrocarbons (PAH's). These compounds are not presently regulatory constituents defined in the TC Rule, but are hazardous substances of concern at numerous Superfund sites around the country. A smaller fraction of creosote is made up of tar acids like phenols and creosols and tar bases like pyridines, acridines, and qualnoline. Creosols and pyridine are currently regulatory constituents. Phenol was considered for inclusion as a regulatory constituent but was deferred for future consideration. It can be seen that wood wastes containing any of the three common preservatives have the potential to be determined hazardous wastes pursuant to the TC Rule.

Two exceptions to the TC Rule may impact the regulatory characterization of preserved timber wastes from bridge demolition. First, solid wastes consisting of discarded wood or wood products that fail the TCLP solely because of arsenic and are not hazardous waste for any other reason are exempted from regulation as hazardous waste [261.4(b)(9)]. Second, solid wastes that fail the TCLP test because of chromium but not any other TCLP chemical and are not a characteristic waste because of any other criteria are also exempted from regulation as a hazardous waste [261.4(b)(i)].

3.0 INVESTIGATIVE PROCEDURES

Sampling and analytical procedures were detailed in a sampling plan that was reviewed and approved by the MDT. Pertinent information from that plan is summarized in this report.

Table 1. Toxicity Characteristic Constituents.

EPA HW No.	Constituent	CAS No.	Chronic Toxicity Reference	Regulatory Level mg/l (ppm)
D004	Arsenic	7440-38-2	0.05	5.0
D005	Barium	7440-39-3	1.0	100.0
D018	Benzene	71-43-2	0.005	0.5
D006	Cadmium	7440-43-9	0.01	1.0
D019	Carbon Tetrachloride	56-23-5	0.00	50.5
D020	Chlordane	57-74-9	0.0003	0.03
D021	Chlorobenzene	108-90-7	1.0	100.0
D022	Chloroform	67-66-3	0.06	6.0
D007	Chromium	7440-47-3	0.05	5.0
D023	o-Cresol	95-48-7	2.0	200.0
D024	m-Cresol	108-39-4	2.0	200.0
D025	p-Cresol	106-44-5	2.0	200.0
D026*	Cresol		2.0	200.0
D016	2,4-D	94-75-7	0.1	10.0
D027	1,4-Dichlorobenzene	106-46-7	0.075	7.5
D028	1,2-Dichloroethane	107-06-2	0.005	0.5
D029	1,1-Dichloroethylene	75-35-4	0.007	0.7
D030	2,4-Dinitrotoluene	121-14-2	0.0005	0.13
D012	Endrin	72-20-8	0.0002	0.02
D013	Heptachlor	76-44-8	0.00008	0.008
D032	Hexachlorobenzene	118-74-1	0.0002	0.13
D033	Hexachloro-1,3-butadiene	87-68-3	0.005	0.05
D034	Hexachloroethane	67-72-1	0.03	3.0
D008	Lead	7439-92-1	0.05	5.0
D013	Lindane	58-89-9	0.004	0.4
D009	Mercury	7439-97-6	0.002	0.2
D014	Methoxychlor	72-43-5	0.1	10.0
D035	Methyl ethyl ketone	78-93-3	2.0	200.0
D036	Nitrobenzene	98-95-3	0.02	2.0
D037	Pentachlorophenol	87-86-5	1.0	100.0
D038	Pyridine	110-86-1	0.04	5.0
D010	Selenium	7782-49-2	0.01	1.0
D011	Silver	7440-22-4	0.05	5.0
D039	Tetrachloroethylene	127-18-4	0.007	0.7
D015	Toxaphene	8001-35-2	0.005	0.5
D040	Trichloroethylene	79-01-6	0.005	0.5
D041	2,4,5-Trichlorophenol	95-95-4	4.0	400.0
D042	2,4,6-Trichlorophenol	88-06-2	0.02	2.0
D017	2,4,5-TP (Silvex)	93-72-1	0.01	1.0
D043	Vinyl Chloride	75-01-4	0.002	0.2

* If o-, p-Cresol cannot be differentiated, total Cresol is to be used.

3.1 General Sampling Strategy

Definitive chemical characterization of the 1,600 or so timber bridges in the Montana Highway System would be extremely expensive. Instead, this investigation was designed as a screening effort to determine the potential for hazardous wastes among the waste materials from bridge demolition. Sampling locations were selected to obtain a wide distribution in the age of preserved materials. Several samples were taken at each site to assess the availability of the bridge materials. Available records did not indicate the type of preservative used at each site. Knowing that this investigation may not result in samples from all three preservative types followup sampling was anticipated.

3.2 Sampling Sites

Five sites were chosen for sampling. These sites included: a timber waste stockpile located along Montana Highway 200 near Simms, Montana (Figure 1); stockpass on Highway 200, 25 miles northeast of Lincoln, Montana (Figure 2); a bridge across the Helena Valley Canal, 2 miles north of Helena, Montana, on Route 316 (Figure 3); a bridge across an irrigation ditch 6 miles northeast of Dillon, Montana, on Montana Highway 41 (Figure 4); and a bridge across an irrigation ditch on Montana Highway 41, 3 miles south of Silver Star, Montana (Figure 5).

3.3 Sample Selection

Preservative chemicals are usually applied to wood under pressure. The preservative typically penetrates to 1 inch or more below the surface. The highest concentrations of residual preservative remain in the near surface zones of the wood. As a result, a wooden member with a relatively small cross-sectional area like a 2- by 4-inch board will likely have a higher average residual preservative concentration than a beam with a large cross-sectional area. Most of the samples taken at each site were biased toward materials likely to have a higher average concentration of preservative to conservatively judge the potential for hazardous wastes from this source.

Figure 1. Timber Waste Stockpile: Located at maintenance site, 1 mile west of Simms, milepost 126.3 on Montana Highway 200. This is unsalvageable wood from 46 to 50 years old.

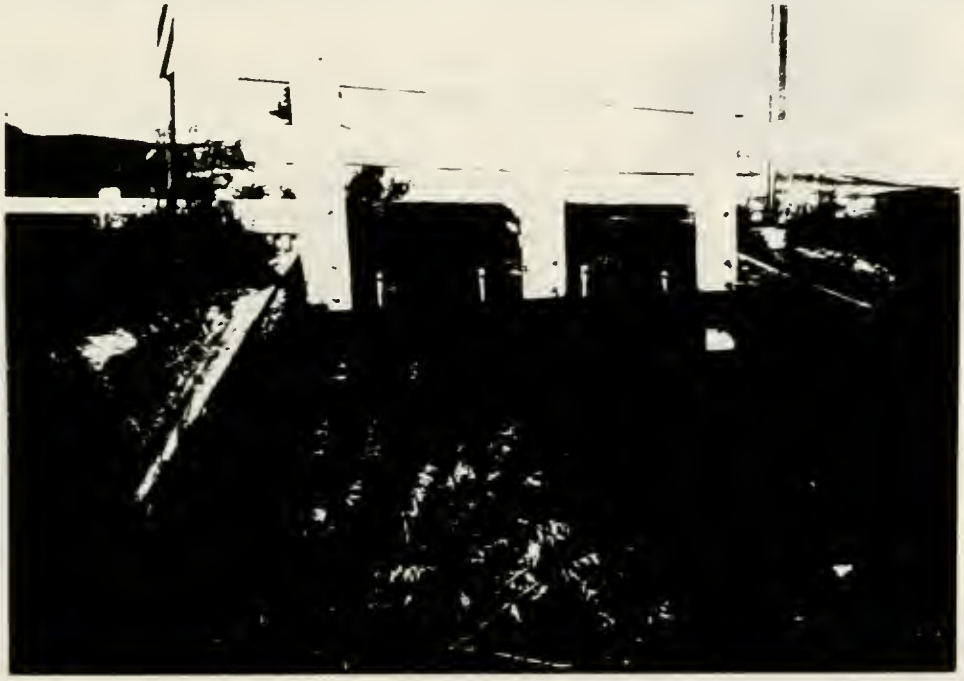


Figure 2. Stock Pass: (Structure No. POO 024 097+03001). Located 25 miles northeast of Lincoln on Montana Highway 200. This bridge is approximately 11 feet long and 27 feet wide. It was built in 1941.

Figure 3. Helena Valley Canal Bridge: (Structure No. SOO 231 002+01001). Located 2 miles north of Helena on Route 316. This bridge is approximately 47 feet long and 27 feet wide. It was built in 1958.

Figure 4. Irrigation Ditch Bridge: (Structure No. POO 049 006+07491). Located 6 miles northeast of Dillon on Montana Highway 41. This bridge is approximately 26 feet long and 29 feet wide. It was built in 1949.

Figure 5. Irrigation Ditch Bridge: (Structure No. POO 029 049+0968-1). Located 3 miles south of Silver Star on Montana Highway 41. This bridge is approximately 25 feet long and 26 feet wide. It was built in 1936.

At each sampling site, four samples were collected. With the exception of one sample at the Silver Star location, all of the samples matched the following criteria:

1: sample to 1 inch depth of "typically" stained area;
2: sample of laminated 2- by 4-inch boards;
3: sample of composited cores to the center of beam in heavily stained area;
4: sample to 1 inch depth of most visible contaminated (non-laminated) material.

One exception was made to the sampling scheme. At the Silver Star bridge, the vertical guardrail posts were observed to be green stained 8- by 8-inch timbers. Since these posts obviously represented a different preservation method from the rest of the material encountered in this project, one of these posts was sampled to a 1 inch depth (Figure 6). This sample replaced the sample to 1 inch depth of a "typically" stained area collected at the other four sites.

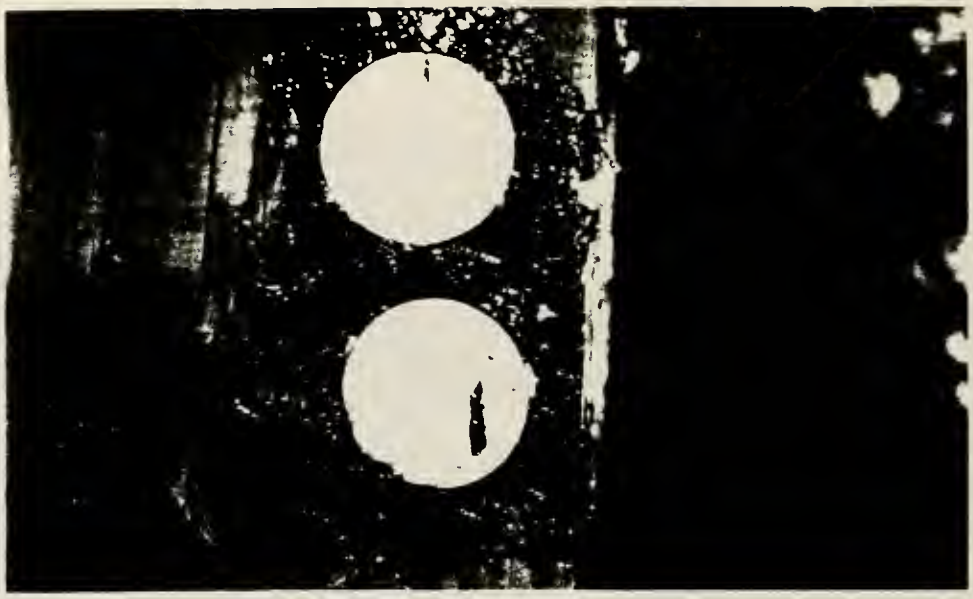


Figure 6. Patched sample location in CCA-treated guardrail post at the bridge near Silver Star.

To perform the analytical procedure for a hazardous constituent characterization requires at least 100 grams (approximately 1/4 pound) of sample. Sample materials must pass through a 9.5 mm sieve or have a surface area per gram of material of at least 3.1 cm^2. To meet these requirements, samples were obtained by collecting shavings from borings made with a brace and bit or an electric drill (Figure 7). The procedure results in thin shavings that substantially exceed the surface area requirements in the TC Rule.

Figure 7. Collecting shavings in a stainless steel pan at the timber waste stockpile near Simms.

3.4 Analytical Methods

Laboratory analyses were conducted on all samples according to the TCLP as described in the Federal Regulations 40 CFR 261 Appendix II and the Contract Laboratory Program (CLP) statement of work (OLMOL.0 and 2/88). All samples were analyzed for the regulatory constituents listed in the TC Rule that have the greatest likelihood to be found in association with the three common wood preservatives. This subset of regulatory constituents is listed in Table 2. In addition, two TCLP extracts from samples thought to contain creosote preservative were analyzed for PAH's to screen for other components of creosote that may leach from wastes containing this preservative. The specific PAH's that were differentiated are also listed in Table 2.

3.5 Sample Collection and Patching

Experimentation with 1-1/4 inch dowels, 2-1/8 inch discs, and various drill bits yielded the following optimum sampling and patching techniques:

1. For sample borings to 1 inch depth, four or five holes of 2-1/8 inch diameter were drilled with a brace and bit, then filled with 2-1/8 inch diameter by 3/4 inch thick tapered wooden discs and covered with silicone caulk (Figure 8).

Figure 8. One inch deep sample borings filled with wooden discs and silicone.

Table 2. Targeted Constituents For MDT Bridge Sampling.

REGULATORY CONSTITUENT	REGULATORY LEVEL mg/l (ppm)
METALS	
Arsenic (As)[a]	5.0
Cadmium (Cd)	1.0
Lead (Pb)	5.0
Barium (Ba)	100.0
Chromium (Cr)[a]	5.0
Silver (Ag)	5.0
Selenium (Se)	1.0
Mercury (Hg)	0.2
ACID EXTRACT ORGANIC COMPOUNDS	
PCP[b]	100.0
2,4,5-Trichlorophenol[b]	400.0
2,4,6-Trichlorophenol	2.0
o-Cresol[c]	200.0
m-Cresol[c]	200.0
p-Cresol[c]	200.0
BASE—NEUTRAL ORGANIC COMPOUNDS	
Pyridine[c]	5.0
POLYNUCLEAR AROMATIC HYDROCARBONS (PAH's)[c]	
Naphthalene	
Acenaphthylene	
Acenaphthene	
Fluorene	
Phenanthrene	
Anthracene	
Fluoranthene	
Pyrene	
Benzo(a)anthracene	
Chrysene	
Benzo(b)fluoranthene	
Benzo(k)fluoranthene	
Benzo(a)pyrene	
Dibenzo(a,h)anthracene	
Benzo(g,h,i)perylene	
Indeno(1,2,3-cd)pyrene	

a Suspected constituents in inorganic salts treatment process.
b Suspected constituents in PCP treatment process.
c Suspected constituents in creosote treatment process.

2. For composited core samples to the centers of beams, three or four holes of 1-1/8 inch diameter were drilled with an electric drill, powered by a portable generator. For repair, these holes were filled with silicone caulk, plugged with a 2-inch length of 1-1/4 inch dowel, and covered with silicone caulk.

3. For laminated 2- by 4-inch decking samples, six to nine holes of 1-1/8 inch diameter were drilled upward 1 to 3 inches into the bottom surface of the decking. At the request of the MDT engineers, these holes were left unfilled to prevent moisture from collecting above any plugs and patch.

3.6 Sample Handling

All field activities were recorded in the project field book. A standardized field reporting form was used to record the information collected at each site. Sample numbers and sample locations were also plotted on a copy of a "typical" bridge drawing to show the approximate location of each sampling point. A copy of the project field book is included in this report as Appendix I.

All samples were double bagged, labeled in the field, and transported in coolers for protection and temperature control. Labels list the date and time of sample collection, sample number, and the sampler's initials. Labels were written in permanent black ink and covered with clear tape. Chain of custody was maintained.

Sample numbers began with the letters "MDT", followed by a two-letter site identification, which is followed by a number designating the type of sample as shown below:

Site Identification

SM: Simms Timber Waste Stockpile
LN: Lincoln Stock Pass Bridge No. POO 024 097+03001
HV: Helena Valley Canal Bridge No. SOO 231 002+01001
DN: Dillon Irrigation Bridge No. POO 049 006+07491
SS: Silver Star Irrigation Bridge No. POO 029 049+0968-1

Sample Type

1: Sample to 1 inch depth of "typically" stained area
2: Sample of laminated 2 by 4s
3: Sample of composited cores to the center of beam in heavily stained area
4: Sample to 1 inch depth of most visibly contaminated (non-laminated) material
5: Replicate sample

4.0 RESULTS AND DISCUSSION

4.1 Field Observations

All field notes from the field sampling log are contained in Appendix I. All sites and materials sampled with the exceptions of the guardrail support post at Silver Star appeared to have been preserved with creosote. It was quite warm during sampling and there was a strong odor at all the sites even though some of these structures had been weathering for many years. Tar deposits on the surface of these materials were common. Depth of preservative staining on these apparently creosote preserved timbers ranged from 1/4 inch to greater than 3 inches. Even surfaces showing a weathered gray appearance, had dark, oily staining a few millimeters below the surface. Laminated 2- by 4-inch boards used for decking were observed to have the darkest staining although some of this staining could have come from road oil.

The guardrail post at the Silver Star ridge was green colored at the surface, and shavings from below the surface showed bright blue staining in the grain of the wood. From observation, it was expected that this material was preserved with CCA. This guardrail post was installed in 1977[4].

4.2 Analytical Results

Laboratory generated analytical data can be seen in Tables 3 and 4. Analytical validation and all data summary sheets can be seen in Appendix II. Full copies of the data packages and validation reviews are maintained in the MDT's Environmenal Bureau project file.

Only one sample of all those tested demonstrated regulatory constituent concentrations high enough to be considered a hazardous waste. That sample was from the guardrail post at the Silver Star site. The TCLP extract from that sample continued 13.4 milligrams per liter (mg/L) arsenic and 5.5 mg/L chromium.

TABLE 3: Summary of Analytical Results for TC Constituents (abbreviation explanations follow table).

MDT SAMPLE NUMBER	CONCENTRATIONS (MG/L)												
	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	Pyr	Cresol	2,4,6	2,4,5	PCP
ACTION LEVELS	5.0	100	1.0	5.0	5.0	0.2	1.0	5.0	5.0	200	2.0	400	100
SM-1	.015	.061	<.002	<.008	.020	<.0002	<.03	<.003	<.1	46	<.1	<.1	<.1
SM-2	.018	.172	<.002	<.008	<.02	<.0002	<.03	.007	<.1	1.6	<.1	<.1	<.1
SM-3	<.013	.166	<.002	.008	.156	<.0002	<.03	<.003	<.1	16	<.1	<.1	<.1
SM-4	.027	.050	<.002	.009	<.02	<.0002	<.03	.007	<.1	32	<.1	<.1	<.1
SM-5	<.013	.118	<.002	.009	<.02	<.0002	<.03	.006	.25	16	<.1	<.1	<.1
LN-1	<.013	.032	<.002	.009	.028	<.0002	<.03	.004	<.1	32 [1]	<.1	<.1	<.1
LN-2	<.013	.031	<.002	<.008	.025	<.0002	<.03	<.003	<.1	43	<.1	<.1	<.1
LN-3	.019	.059	<.002	<.008	.030	<.0002	.042	<.003	<.1	42	<.1	<.1	<.1
LN-4	.126	.188	<.002	<.008	.024	<.0002	<.03	<.003	<.1	58 [1]	<.1	<.1	<.1
HV-1	.023	.037	<.002	<.008	<.02	<.0002	<.03	.005	<.1	17	<.1	<.1	<.1
HV-2	.015	.037	.002	.008	.041	<.0002	<.03	.008	<.1	17	<.1	<.1	<.1
HV-3	<.013	.020	<.002	<.008	<.02	<.0002	<.03	<.003	<.1	53	<.1	<.1	<.1
HV-4	.025	.030	<.002	<.008	.026	<.0002	<.03	.005	.03	25	<.1	<.1	<.1
SS-1	13.4	.035	<.002	5.5	.019	.0009	.781	<.003	<.1	0.03	<.1	<.1	<.1
SS-2	.051	.044	<.002	.015	<.02	<.0002	<.03	.005	.31	53 [1]	<.1	<.1	<.1
SS-3	<.013	.029	<.002	<.008	<.02	<.0002	<.03	<.003	<.1	24 [1]	<.1	<.1	<.1
SS-4	.014	.082	<.002	.009	.047	<.0002	<.03	.004	<.1	84 [1]	<.1	<.1	.04
DN-1	.016	.071	<.002	.010	.042	<.0002	<.03	.006	<.1	32	<.1	<.1	<.1
DN-2	<.013	.092	<.002	<.008	.021	<.0002	<.03	<.003	.4	39	<.1	<.1	<.1
DN-3	<.013	.031	<.002	<.008	<.02	<.0002	<.03	.004	.2	12	<.1	<.1	<.1
DN-4	<.013	.097	<.002	<.008	.038	<.0002	<.03	.005	.04	37	<.1	<.1	<.1
BLANK[2]	<.013	.005	<.002	<.008	.021	<.0002	<.03	.006	<.1	<.1	<.1	<.1	<.1

ABREVIATIONS: As: Arsenic; Ba: Barium; Cd: Cadmium; Cr: Chromium; Pb: Lead; Hg: Mercury; Se: Selenium; Ag: Silver; Pyr: Pyridine; Cresol: Total Cresols; 2,4,6: 2,4,6-Trichlorophenol; 2,4,5: 2,4,5-Trichlorophenol; PCP: Pentachlorophenol

[1] Estimated value for total cresols.

[2] Extraction blank.

Table 4. Summary of Base/Neutral Orgaincs Analyses.

COMPOUND/SAMPLE	HV-4 MG/L	MG/L
Naphthalene	6.5	7.7
2-Methylnapthalene	<.1	.44
Acenaphthylene	<.1	<.1
Acenaphthene	.57	.38
Dibenzofuran	.36	.23
Fluorene	.28	.19
Phenanthrene	.30	.23
Anthracene	<.1	<.1
Flouranthene	<.1	<.1
Pyrene	<.1	<.1
Benzo(a)anthracene	<.1	<.1
Chrysene	<.1	<.1
Benzo(b)flouranthene	<.1	<.1
Benzo(k)Houranthene	<.1	<.1
Benzo(a)pyrene	<.1	<.1
Indeno(1,2,3-cd)pyrene	<.1	<.1
Dibenzo(a,h)anthracene	<.1	<.1
Benzo(g,h,i)perylene	<.1	<.1

None of the extracts analyzed showed any significant concentrations of any other inorganic regulatory constituent. The analytical results also indicate that all other wood materials sampled were preserved with creosote. Substantial concentrations of creosol averaging 34 mg/L were present in the extracts from these samples. Sample location did not strongly influence the presence of creosol although those areas observed to be the most stained did have slightly higher average values of creosol. For those extracts where pyridine was detected the concentrations were very low. Review of the other tentatively identified compounds in the analytical data indicated that substantial concentrations of phenol isomers were also present in the extracts. The base-neutral organics scan also indicates mg/L concentrations of napthalene and trace quantities of methylnapthalene acenapthene, dibenzo-furan, flourene, and penanthrene.

4.3 Discussion

Given current regulations regarding the determination of hazardous waste by the TC Rule, it is unlikely that any creosote-treated wood wastes resulting from the demolition of old timber bridges require management as a hazardous waste at the present time. Creosol was the regulatory constituent present in the TCLP extracts in the highest concentrations and the highest concentration present was less than half of the regulatory limit. However, the regulatory constituent list, the allowable concentrations, and even the extraction procedure are the subject of continuing debate and potential future regulation. For example, total phenol is still under consideration as a regulatory constituent and there were significant concentrations of various phenol isomers in the extracts. As a result, the regulatory status of these creosote-bearing wastes should be periodically reviewed.

The fact that the one sample from CCA preserved wood meets the definition of the hazardous waste pursuant to the TC Rule indicates the potential that some wood wastes may have to be managed as hazardous waste. This sample may not be fully representative, since this sample was from wood of relatively recent origin (1977) and the material in the sample was taken from the first inch of the beam, an area where the concentration of preservative is expected to be at its highest. Regardless, the result is an indictor worthy of additional evaluation. Depending on their ionic state, arsenic and chromium are very mobile in the environment and can represent a significant potential hazard to the public's health and the environment, as well as astronomical cleanup and legal costs from inappropriate management.

5.0 CONCLUSIONS

1. Given current regulatory criteria, wastes from bridge materials preserved with creosote require management as solid wastes not hazardous wastes.

2. The regulatory status of wastes from bridge materials preserved with PCP was not evaluated with the sampling effort conducted.

3. Wastes from wood preserved with CCA may require management and disposal as hazardous wastes.

4. It is likely that wooden materials treated by CCA can be visually sorted from wooden materials treated with creosote.

5. The regulatory staus of CCA-treated wood wastes can be adequately characterized by analyzing the TCLP extract for arsenic and chromium resulting in significant cost savings for this action.

6.0 RECOMMENDATIONS

1. Samples from bridges treated with PCP should be obtained and evaluated pursuant to the TC Rule.

2. Ongoing demolition activities should be examined for CCA-treated materials. Wastes from these materials should be segregated from other wastes and characterized to determine the appropriate waste management requirements.

3. Followup discussions should be initiated with MDHES to better define acceptable sampling methods for regulatory characterization.

4. An expanded evaluation of CCA-preserved materials should be initiated to expand the data base on CCA-preserved materials and identify any influencing factors that may be used to cost-effectively manage the issue.

7.0 REFERENCES

(1) Burdell, C.A., Hazardous Waste Treatment and Disposal in the Wood Preserving Industry, Atlanta, GA, 1984.

(2) Case, D., "The Resource Conservative and Recovery Act," Environmental Law Handbook, Tenth Edition, Government Institutes, Inc., Rockville, MD, 1989.

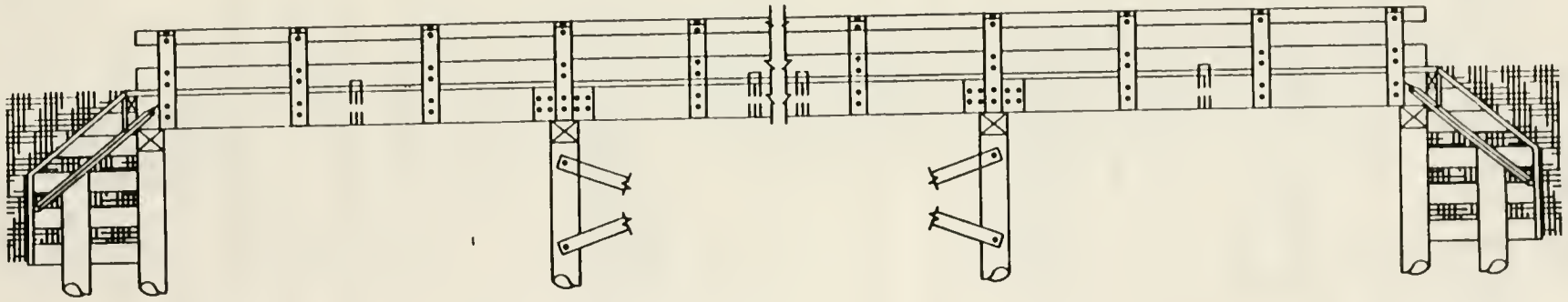
(3) Newton J., "Understanding the Toxicity Characteristic Rule," Pollution Engineering, Sept. 1990, pg. 90-98.

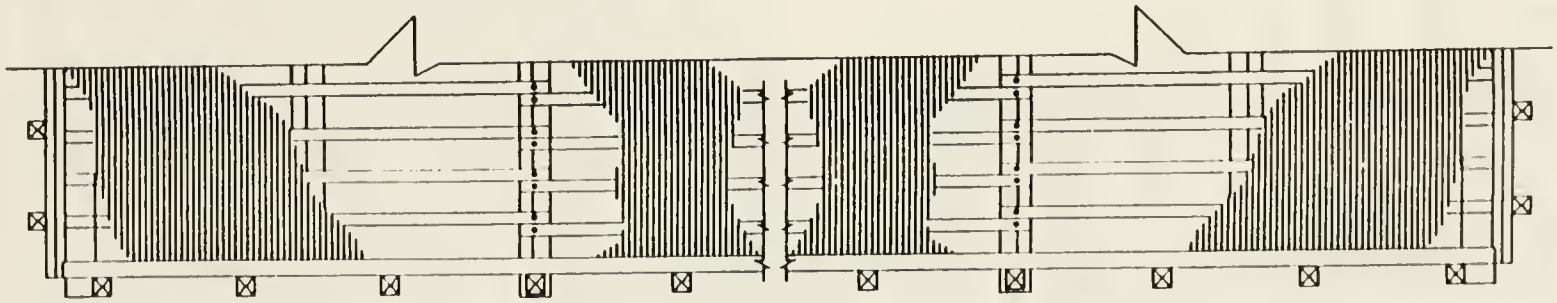
(4) Personal Communication between Bill Fullerton, MDT, and Doug Richmond, MSE, October 25, 1991.

APPENDIX I—Field Log Book

Montana Department of Transportation

Timber Bridge Investigation





MSE INC.

ACAD#: 7531-001
REV: - DATE: 8/16/91
DRAFTER: MC

DATE: 8/27/91

LOCATION: SIMMS TIMBER WASTE PILE BRIDGE #: NO # — DEBRIS PILE

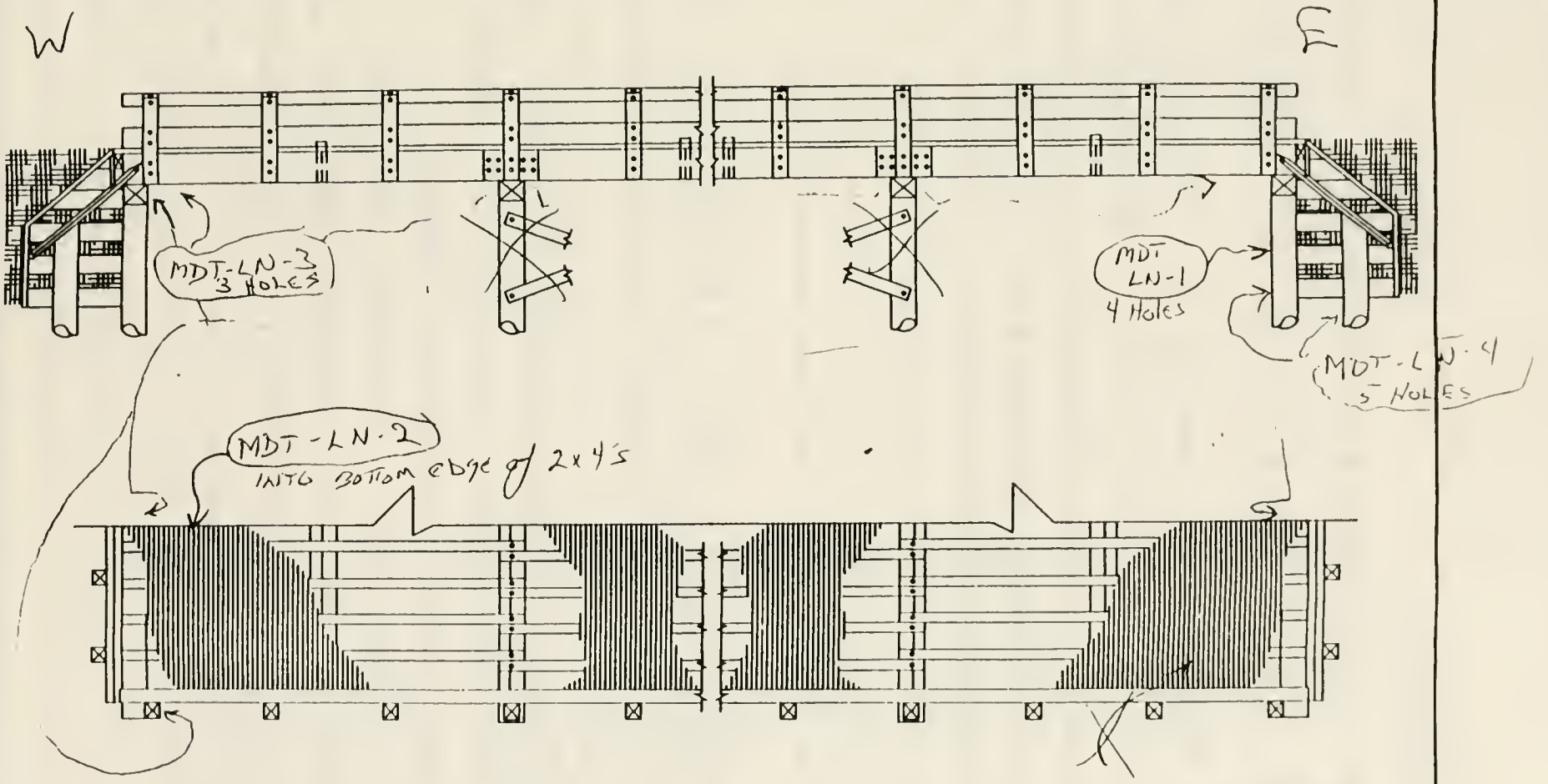
PERSONNEL: MSE: RUBICH, RICHMOND MDT: DAVE JOHNSON, BILL FULLERTON

GENERAL DESCRIPTION: 2 piles of DEBRIS @ MILEMARKER 126.3 on HWY 200 1½ miles W. of SIMMS THICK OILY CREOSOTE COATING ON MOST of THE DEBRIS SOME MATERIAL SHOWS WEATHERED GRAY EXTERIOR, BUT IS DARK AND OILY JUST BELOW SURFACE. EXPERIMENTS SUCCESSFUL w/ DRIVING ½" DOWEL INTO 1½" HOLE IN BEAM.

SAMPLES: MDT-SM-1 = 9 HOLES TO 1" WITH 1¼" BIT AND POWER DRILL IN 8"x6" BEAM - STAINING APPARENT IN GRAIN TO FULL 1" DEPTH THIS IS "Typical STAINING" MDT-SM-2 + MDT-SM-5 = 2x4 DECKING - FIRST ATTEMPT W/ 1½" POWER BIT - 3 HOLES, THEN HIT NAIL CONTAMINATING SAMPLE. D-CONNE DRILLED 2 END ON HOLES - HERY HEAVY STAINING TO 3". COMPOSITED THIS W/ 9@1½" x 1" to 3" HOLES + 5 @ 2½" x ½ to 1" DEEP HAND AUGER HOLES 2X4'S ARE STAINED TO ¼" DEPTH from SIDE.

MDT-SM-4 = HEAVILY STAINED BEAM TO 1" with 2½" ~~DIA~~ DIAM. HAND AUGER (5 HOLES) BEAM IS STAINED THROUGHOUT DEPTH of HOLES, HAS HEAVY CREOSOTE TAR LAYER ON SURFACE.

MDT-SM-~~4~~3 = ~~MOST HISTORY CONTAMINATED BEAM~~ To CENTER of MDT-SM-3 DPR HEAVILY STAINED BEAM. (8"x6") Drilled 4 HOLES 1½ DIAM STAINING IS HEAVY TO AT LEAST 1" of DEPTH IN EACH HOLE.



MSE INC.

ACAD#: 7531-001
REV: - DATE: 8/16/91
DRAFTER: MC

DATE: 8/27/91

LOCATION: Lincoln Stockpass M.P 97.3 BRIDGE #: PDO 024 097+0300

PERSONNEL: MSE. Richmond/Rubich MDT: Fullerton & Johnson

GENERAL DESCRIPTION: 10 ± long bridge over Stockpass. Easy accessibility. Tar coating - creosote - weathered gray on ends and ground base. 1¼ holes patched w/ 1½" dowels + silicone. 2½"x1" holes patched w/ 2½" tapered pine plugs + silicone

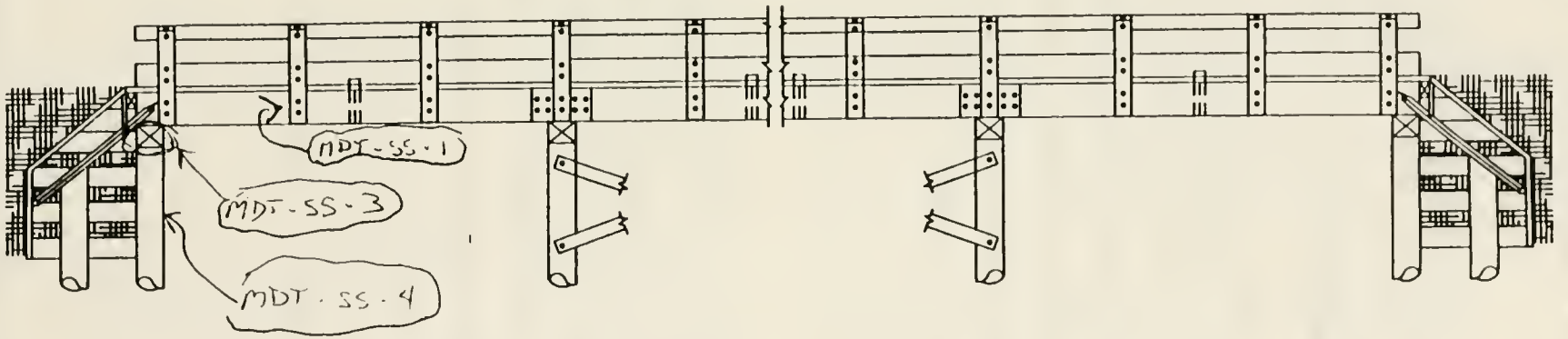
SAMPLES: MDT-LN-1 4 Holes: 2½" diam x 1" deep in Barking plank on east end center. Stained dark to 3/4" or 1"

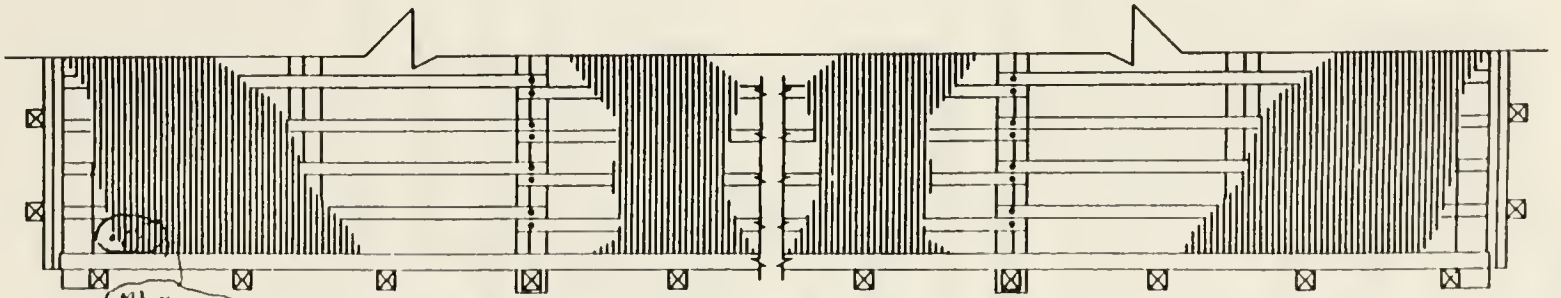
MDT-LN-2 8 Holes: 1½" x 1 to 3" deep - heavily black stained to ≃ ½" up into 2x4 edges @ bottom of decking N. side of bridge

MDT-LN-3 3 Holes 1¼ diam x 6" deep into 12"x12" caps as shown. Holes near end showed dark oily staining to 3+". Further from end (≈ 2') stained less - stained to 1"

MDT-LN-4 5 Holes into pilings - thick oily tar on surface - stained only to ¼" and stained deeper in cracks. Holes are 2½" x 1" - big chips.

SILVER STAR: Bridge is creosote w/ green (CCA ?) guardrail posts





MSE INC.
ACAD#: 7531-001
REV: – DATE: 8/16/91
DRAFTER: MC

DATE: 8/28/91

LOCATION: 3 mi. South of Silver Star MT 41 BRIDGE #: 029 049+0968-1 P00

PERSONNEL: MSE: Doug Richmond/Stewart-Smith; MDT: Bill Fullerton

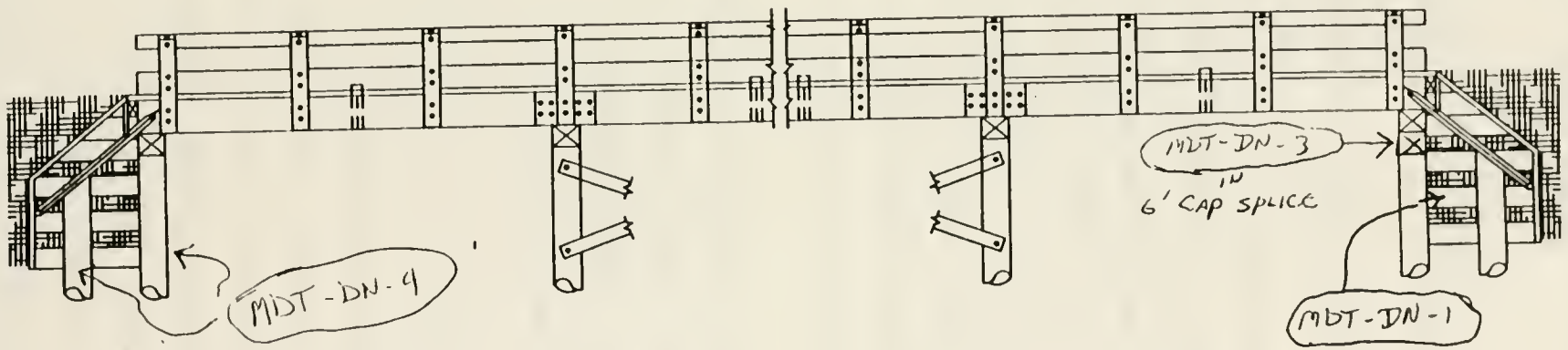
GENERAL DESCRIPTION: 25' LONG BRIDGE TAR COATED DARK TIMBERS - SOME WEATHERED GRAY - 10 GUARD RAIL POSTS ARE 8" x 8" green pressure treated timbers. Sample MDT-SS-1 WAS TAKEN from THESE. BRIDGE HAS 2 to 3 FEET of WATER flowing UNDER, BUT ACCESS IS POSSIBLE UNDER EAST END. SAMPLED from 11:00 - 13:15. Completed PATCHING @ 13:30

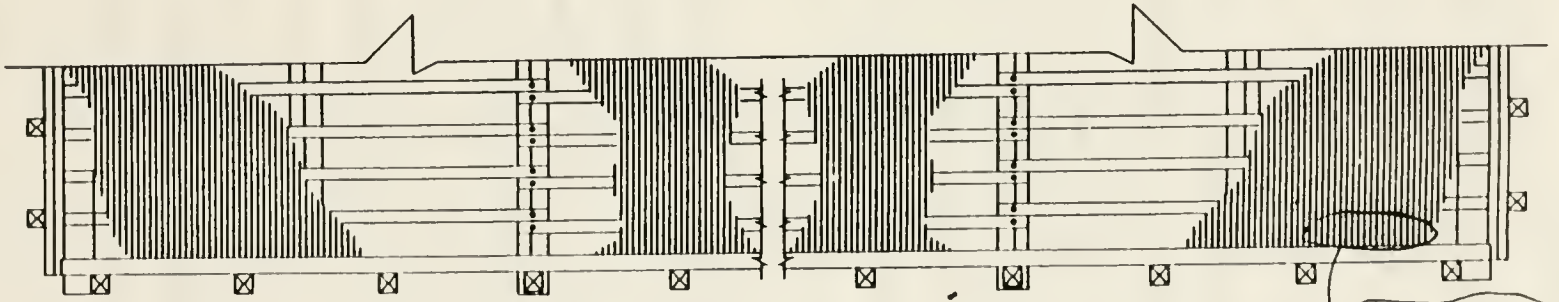
SAMPLES: MDT-SS-1 THIS SAMPLE IS 4 HOLES TO 1" DEEP x 2½" DIAM. IN GREEN 8"x8" GAURD RAIL POSTS. Not a Bridge-Typical SAMPLE BUT RATHER A SAMPLE from THIS NEWER, DIFFERENT MATERIAL

MDT-SS-2 9 Holes @ 1" to 3" DEEP x 1½" DIAM. UP INTO BOTTOM of 2x4 DECKING - DARK STAINED SURFACE WITH TAR COATING. 2x4's STAINED ¼" to 1"

MDT-SS-3 3 Holes 1½ DIA x 6" DEEP INTO HEAVILY BLACK STAINED 12" x 12" CAP THAT CROSSES EAST END of BRIDGE. STAINED TO ± ¼".

MDT-SS-4 is 4 Holes: 2½" DIAM x 1" DEEP IN HEAVILY BLACK STAINED Piling (12" DIAM) ON EAST END of BRIDGE. STAINED TO ¾" to 1".





INC.

ACAD#: 7531-001
REV: - DATE: 8/16/91
DRAFTER: MC

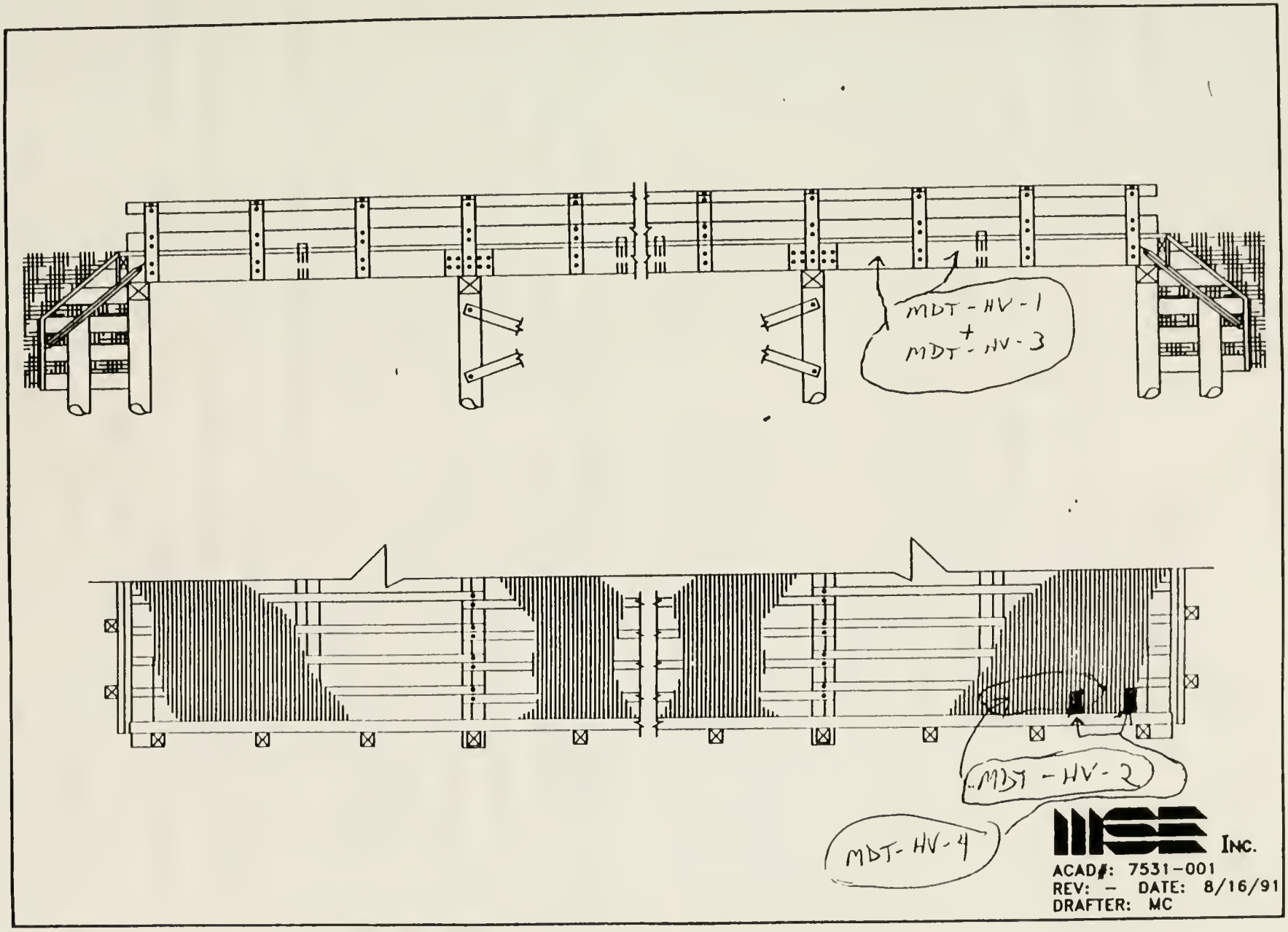
DATE: 8/28/91

LOCATION: 6.7 milepost North of Dillon, MT #1 BRIDGE #: P00 049 006+07491

PERSONNEL: MSE: D. Richmond S. Smith. MDT: Bill Fullerton

GENERAL DESCRIPTION: Small irrigation ditch (2' wide) - Bridge is easily accessible for sampling. Guardrails are painted white. Everything else is dark brown to black. Tar staining on stringers and pilings. Whole bridge is probably creosote. Back walls + some pilings are gray from weathering with irregular dark staining. STARTED SAMPLING @ ~~2~~ 14:30 finished @ 16:10. Finished patching @ 16:30.

SAMPLES: MDT-DN-1 4 holes: 2⅛" diam x 1" deep in irregular stain on north backwall. All 4 holes stained to approx. 3/4" deep. One hole was in gray weathered @ edge of stain. 2 holes in darker part of stain showed much oilier chips from outer ¼". MDT-DN-2 is 7 holes up into 2x4 decking between easterly two stringers. 2x4s are mostly weathered gray w/ irregular dark stains. Samples are from dark stains. Staining depth is variable ¼" ± 2", most are stained deeper than 1". MDT-DN-3 is 3 holes 1⅝ Diam x 6" deep in 12"x12"x6' cap splice at north end of bridge. Area is dark stained w/ black oil seeping from grain. Holes are stained to 1" deep. MDT-DN-4 is 4 holes in pilings 2⅛" diam x 1" deep. Oily sample yet 2 of the holes had oozing oil @ 1" deep the other 2 holes were stained to 1" and to ¼".



MSE INC.

ACAD#: 7531-001
REV: - DATE: 8/16/91
DRAFTER: MC

DATE: 8/29/91

LOCATION: Helena Valley Canal BRIDGE #: S00231 002+0100

PERSONNEL: MSE: D. Richmond, K. Manchester; MDT: Bill F. Marton, Dirk Robe

GENERAL DESCRIPTION: SKEWED BRIDGE - 2 LANE RD. ACROSS IRRIGATION CANAL. GUARDRAIL POSTS ARE PAINTED WHITE - ALL OTHER TIMBERS HAVE SAME APPEARANCE + SMELL AS OTHER BRIDGES SAMPLED.

SAMPLES: MDT-HV-1 7 HOLES 1¼" DIAM x 1" DEEP INTO OUTSIDE STRINGER ON EAST SIDE of BRIDGE - STRINGER IS BROWN STAINED WITH GRAY WEATHERING AND WHITE PAINT OVERSPRAY FROM GUARD RAILS. SAMPLE IS FROM BROWN STAINED AREA - APPEARS TO BE CREOSOTE STAINED TO ¼" DEEP

MDT-HV-2 6 HOLES 2 to 3" DEEP x 1¼" DIAM UP INTO 2X4 DECKING BETWEEN THE EASTERLY 2 STRINGERS. STAINED ½" to 1½ DEEP.

MDT-HV-3 4 HOLES 1¼" DIAM X 3" DEEP (FIRST HOLE to 5" DEEP) IN 1F"X6" STRINGER ALONG EAST EDGE of BRIDGE. SAME AREA AS # HV-1 STAINING ¼" to 1" DEEP

MDT-HV-4 7 HOLES 1¼" DIAM x 1" DEEP INTO PATCH BLOCKS BETWEEN EASTERLY 2 STRINGERS. 6"/12" x 1F' LONG VERY BLACK OILY TO FULL 1" DEPTH. WORST SAMPLE OUT OF ALL 21. APPEARANCE WISE

APPENDIX II—Analytical Data Summaries

Montana Department of Transportation

Timber Bridge Investigation

Trace Metals
Bridge Sample Identification Key

Bridge ID	Bridge Name	Field Sampling ID	Laboratory ID	Sample Type
None	Simms Waste Pile	SM-1	X5643	Typical staining, 1-inch depth
None	Simms Waste pile	SM-2	X5644	Laminated 2-inch by 4-inch boards
None	Simms Waste Pile	SM-3	X5645	Cores to center of beam
None	Simms Waste Pile	SM-4	X5646	1-inch cores, most visually contaminated
None	Simms Waste Pile	SM-5	X5647	Replicate 2-inch by 4-inch boards
P00 024097 +03001	Lincoln Stock Pass	LN-1	X5639	Typical staining, 1-inch depth
P00 024097 +03001	Lincoln Stock Pass	LN-2	X5640	Laminated 2-inch by 4-inch boards
P00 024097 +03001	Lincoln Stock Pass	LN-3	X5641	Cores to center of beam
P00 024097 +03001	Lincoln Stock Pass	LN-4	X5642	1-inch cores, most visually contaminated
S00 231 002+01001	Helena Valley Coral	HV-1	X5656	Typical Staining, 1-inch depth
S00 231 002+01001	Helena Valley Coral	HV-2	X5657	Laminated 2-inch by 4-inch boards
S00 231 002+01001	Helena Valley Coral	HV-3	X5658	Cores to Center of Beam
S00 231 002+01001	Helena Valley Coral	HV-4	X5659	1-inch depth, most staining (most visually stained of all samples)

Trace Metals
Bridge Sample Identification Key

Bridge ID	Bridge Name	Field Sampling ID	Laboratory ID	Sample Type
P00 029 049 +0968-1	Silver Star Bridge	SS-1	X5648	1-inch depth, Bridge Rail Targeted for CCA Treated Wood
P00 029 049 +0968-1	Silver Star Bridge	SS-2	X5649	Laminated 2-inch by 4-inch boards
P00 029 049 +0968-1	Silver Star Bridge	SS-3	X5650	Cores to center of beam
P00 029 049 +0968-1	Silver Star Bridge	SS-4	X5651	1-inch cores, most visual staining
P00 049 006 +07491	Dillon Irrigation Br.	DN-1	X5652	Typical to 1-inch
P00 049 006 +07491	Dillon Irrigation Br.	DN-2	X5653	Laminated 2-inch by 4-inch boards
P00 049 006 +07491	Dillon Irrigation Br.	DN-3	X5654	Cores to center of beam
P00 049 006 +07491	Dillon Irrigation Br.	DN-4	X5655	Most Staining to 1-inch

3

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5656

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1048C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34331

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	15000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

FORM I SV-1 1/87 Rev.

F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5656

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34331

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	98-01-1	2-Furancarboxaldehyde (9CI)	4.87	2000.	J
2.	589-93-5	Pyridine, 2,5-dimethyl- (9CI	8.06	1000.	J
3.	- -	UNKNOWN	14.09	100.	J
4.	- -	UNKNOWN AROMATIC	15.13	100.	J
5.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.41	400.	J
6.	464-45-9	Bicyclo[2.2.1]heptan-2-ol, 1	15.65	300.	J
7.	- -	UNKNOWN	16.04	300.	J
8.	- -	UNKNOWN AROMATIC	16.20	100.	J
9.	- -	UNKNOWN	16.39	500.	J
10.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	16.71	100.	J
11.	119-65-3	Isoquinoline (8CI9CI)	17.69	1000.	J
12.	- -	UNKNOWN AROMATIC	18.17	400.	J
13.	698-71-5	Phenol, 3-ethyl-5-methyl- (9	18.25	80.	J
14.	91-63-4	Quinoline, 2-methyl- (9CI)	19.39	600.	J
15.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.41	1000.	J
16.	612-58-8	Quinoline, 3-methyl- (8CI9CI	21.00	1000.	J
17.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.97	1000.	J
18.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.50	900.	J
19.	- -	UNKNOWN AROMATIC	27.17	1000.	J
20.	- -	UNKNOWN	27.96	600.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

3

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

X5653

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34380

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	500.	U
95-48-7	Cresols,Total	17000.	D
88-06-2	2,4,6-Trichlorophenol	500.	U
93-76-5	2,4,5-Trichlorophenol	500.	U
87-86-5	Pentachlorophenol	500.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34380

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/27/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

Number TICs found: 19 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	98-01-1	2-Furancarboxaldehyde (9CI)	4.82	1000.	J
2.	- -	UNKNOWN	8.03	700.	J
3.	- -	UNKNOWN	14.02	700.	J
4.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.04	6000.	J
5.	507-70-0	Borneol (8CI)	15.53	3000.	J
6.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.65	4000.	J
7.	10482-56-1	3-Cyclohexene-1-methanol, .a	16.24	6000.	J
8.	- -	UNKNOWN AROMATIC	16.36	900.	J
9.	119-65-3	Isoquinoline (8CI9CI)	17.44	20000.	J
10.	495-10-3	Benzeneacetonitrile, .alpha.	17.96	4000.	J
11.	- -	UNKNOWN	18.03	500.	J
12.	91-63-4	Quinoline, 2-methyl- (9CI)	19.22	7000.	J
13.	- -	UNKNOWN	19.67	800.	J
14.	- -	UNKNOWN AROMATIC	19.98	500.	J
15.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.26	1000.	J
16.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.87	1000.	J
17.	- -	UNKNOWN AROMATIC	21.88	800.	J
18.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.39	900.	J
19.	- -	UNKNOWN	27.08	900.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5553

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34328

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	400.	
95-48-7	Cresols,Total	31000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5653

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34328

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN AROMATIC	13.86	200.	J
2.	- -	UNKNOWN AROMATIC	14.82	80.	J
3.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.24	800.	J
4.	- -	UNKNOWN	15.79	300.	J
5.	- -	UNKNOWN	16.04	100.	J
6.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	16.38	80.	J
7.	496-78-6	Phenol, 2,4,5-trimethyl- (8C	16.60	200.	J
8.	1515-95-3	Benzene, 1-ethyl-4-methoxy-	17.42	100.	J
9.	119-65-3	Isoquinoline (8CI9CI)	17.64	600.	J
10.	- -	UNKNOWN AROMATIC	18.19	300.	J
11.	697-82-5	Phenol, 2,3,5-trimethyl- (8C	18.31	60.	J
12.	2416-94-6	Phenol, 2,3,6-trimethyl- (8C	18.43	60.	J
13.	91-63-4	Quinoline, 2-methyl- (9CI)	19.39	200.	J
14.	- -	UNKNOWN AROMATIC	19.57	80.	J
15.	6351-10-6	1H-Inden-1-ol, 2,3-dihydro-	20.12	2000.	J
16.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.40	800.	J
17.	491-35-0	Quinoline, 4-methyl- (9CI)	21.01	600.	J
18.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.99	700.	J
19.	- -	UNKNOWN AROMATIC	22.52	900.	J
20.	1453-06-1	Benzenebutanoic acid, 2,5-di	25.36	2000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

K5653 SL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34366

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
110-86-1	Pyridine	1000.	U	
95-48-7	Cresols,Total	39000.		D
88-06-2	2,4,6-Trichlorophenol	1000.	U	
93-76-5	2,4,5-Trichlorophenol	1000.	U	
87-86-5	Pentachlorophenol	1000.	U	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
X5653 SL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34366

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec. Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	591-22-0	Pyridine, 3,5-dimethyl- (9CI	8.05	2000.	J
2.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.76	1000.	J
3.	90-00-6	Phenol, 2-ethyl- (9CI)	14.71	600.	J
4.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.04	20000.	J
5.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.61	10000.	J
6.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	16.24	1000.	J
7.	- -	UNKNOWN AROMATIC	16.28	800.	J
8.	527-54-8	Phenol, 3,4,5-trimethyl- (8C	16.50	1000.	J
9.	- -	UNKNOWN AROMATIC	17.17	1000.	J
10.	- -	UNKNOWN AROMATIC	17.28	800.	J
11.	119-65-3	Isoquinoline (8CI9CI)	17.40	10000.	J
12.	1687-61-2	Phenol, 2-ethyl-5-methyl- (9	17.56	800.	J
13.	- -	UNKNOWN AROMATIC	17.99	4000.	J
14.	- -	UNKNOWN AROMATIC	18.17	800.	J
15.	- -	UNKNOWN AROMATIC	18.29	800.	J
16.	91-63-4	Quinoline, 2-methyl- (9CI)	19.21	2000.	J
17.	- -	UNKNOWN AROMATIC	19.43	1000.	J
18.	- -	UNKNOWN AROMATIC	19.98	1000.	J
19.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.40	800.	J
20.	- -	UNKNOWN	25.08	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

X5654

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34329

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	200.	
95-48-7	Cresols,Total	11000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA [illegible]

X5654

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34329

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.83	300.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.19	2000.	J
3.	507-70-0	Borneol (8CI)	15.66	600.	J
4.	- -	UNKNOWN	15.78	200.	J
5.	275-51-4	Azulene (8CI9CI)	16.05	400.	J
6.	- -	UNKNOWN	16.35	500.	J
7.	496-78-6	Phenol, 2,4,5-trimethyl- (8C	16.60	300.	J
8.	1687-61-2	Phenol, 2-ethyl-5-methyl- (9	17.33	400.	J
9.	119-65-3	Isoquinoline (8CI9CI)	17.57	1000.	J
10.	- -	UNKNOWN AROMATIC	18.14	700.	J
11.	697-82-5	Phenol, 2,3,5-trimethyl- (8C	18.28	200.	J
12.	2416-94-6	Phenol, 2,3,6-trimethyl- (8C	18.40	200.	J
13.	- -	UNKNOWN AROMATIC	18.89	200.	J
14.	- -	UNKNOWN AROMATIC	19.30	500.	J
15.	- -	UNKNOWN AROMATIC	19.52	200.	J
16.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.09	700.	J
17.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.40	500.	J
18.	86-73-7	9H-Fluorene (9CI)	25.45	2000.	J
19.	- -	UNKNOWN AROMATIC	32.36	700.	J
20.	- -	UNKNOWN	33.54	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5654 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34367

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	500.	U
95-48-7	Cresols,Total	12000.	D
88-06-2	2,4,6-Trichlorophenol	500.	U
93-76-5	2,4,5-Trichlorophenol	500.	U
87-86-5	Pentachlorophenol	500.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5654 01

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34367

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	8.03	600.	J
2.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.76	700.	J
3.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.02	7000.	J
4.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.59	4000.	J
5.	- -	UNKNOWN	15.98	2000.	J
6.	- -	UNKNOWN	16.22	3000.	J
7.	2416-94-6	Phenol, 2,3,6-trimethyl- (8C	16.51	700.	J
8.	1687-61-2	Phenol, 2-ethyl-5-methyl- (9	17.18	700.	J
9.	- -	UNKNOWN AROMATIC	17.26	500.	J
10.	119-65-3	Isoquinoline (8CI9CI)	17.40	5000.	J
11.	1123-94-0	Phenol, 4-ethyl-3-methyl- (9	17.54	400.	J
12.	- -	UNKNOWN AROMATIC	17.97	2000.	J
13.	- -	UNKNOWN AROMATIC	18.18	500.	J
14.	- -	UNKNOWN AROMATIC	18.28	400.	J
15.	4453-90-1	1,4-Methanonaphthalene, 1,4-	18.85	500.	J
16.	- -	UNKNOWN	19.13	600.	J
17.	91-63-4	Quinoline, 2-methyl- (9CI)	19.19	600.	J
18.	- -	UNKNOWN AROMATIC	19.42	400.	J
19.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	19.96	500.	J
20.	- -	UNKNOWN	25.16	3000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

XS655

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34330

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	39.	J
95-48-7	Cresols,Total	30000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5533

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34330

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	11.42	2000.	J
2.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	13.90	80.	J
3.	105-67-9	Phenol, 2,4-dimethyl- (9CI).	15.34	500.	J
4.	- -	UNKNOWN	15.81	100.	J
5.	91-20-3	Naphthalene (ACN)(DOT)(8CI9C	16.10	200.	J
6.	527-54-8	Phenol, 3,4,5-trimethyl- (8C	16.66	80.	J
7.	- -	UNKNOWN	17.64	200.	J
8.	1515-95-3	Benzene, 1-ethyl-4-methoxy-	17.78	400.	J
9.	3855-26-3	Phenol, 2-ethyl-4-methyl- (9	17.90	60.	J
10.	119-65-3	Isoquinoline (8CI9CI)	18.31	300.	J
11.	697-82-5	Phenol, 2,3,5-trimethyl- (8C	18.56	60.	J
12.	- -	UNKNOWN AROMATIC	18.80	60.	J
13.	- -	UNKNOWN AROMATIC	19.35	60.	J
14.	91-63-4	Quinoline, 2-methyl- (9CI)	19.47	200.	J
15.	- -	UNKNOWN AROMATIC	19.67	1000.	J
16.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.22	2000.	J
17.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.49	1000.	J
18.	491-35-0	Quinoline, 4-methyl- (9CI)	21.10	900.	J
19.	93-37-8	Quinoline, 2,7-dimethyl- (8C	22.05	1000.	J
20.	13362-80-6	Quinoline, 4,8-dimethyl- (8C	22.58	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

X5655 01

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34370

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	37000.	D
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5555 21

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34370

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	583-58-4	Pyridine, 3,4-dimethyl- (9CI	8.06	2000.	J
2.	- -	UNKNOWN	9.93	2000.	J
3.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.78	1000.	J
4.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.06	10000.	J
5.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.63	10000.	J
6.	91-20-3	Naphthalene (ACN)(DOT)(8CI9C	15.98	3000.	J
7.	- -	UNKNOWN AROMATIC	16.32	1000.	J
8.	496-78-6	Phenol, 2,4,5-trimethyl- (8C	16.53	1000.	J
9.	2219-73-0	Phenol, 4-ethyl-2-methyl- (9	17.22	1000.	J
10.	1687-64-5	Phenol, 2-ethyl-6-methyl- (9	17.30	800.	J
11.	119-65-3	Isoquinoline (8CI9CI)	17.44	10000.	J
12.	2219-73-0	Phenol, 4-ethyl-2-methyl- (9	17.58	800.	J
13.	- -	UNKNOWN AROMATIC	18.01	4000.	J
14.	- -	UNKNOWN AROMATIC	18.19	800.	J
15.	2416-94-6	Phenol, 2,3,6-trimethyl- (8C	18.32	800.	J
16.	91-63-4	Quinoline, 2-methyl- (9CI)	19.23	3000.	J
17.	- -	UNKNOWN AROMATIC	19.45	1000.	J
18.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.00	2000.	J
19.	877-43-0	Quinoline, 2,6-dimethyl- (8C	21.89	800.	J
20.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.42	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5655

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34447

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	6500.	E
91-57-6	2-Methylnaphthalene	440.	
208-96-8	Acenaphthylene	99.	U
83-32-9	Acenaphthene	380.	
132-64-9	Dibenzofuran	230.	
86-73-7	Fluorene	190.	
85-01-8	Phenanthrene	230.	
120-12-7	Anthracene	99.	U
206-44-0	Fluoranthene	99.	U
129-00-0	Pyrene	99.	U
56-55-3	Benzo(a)anthracene	99.	U
218-01-9	Chrysene	99.	U
205-99-2	Benzo(b)fluoranthene	99.	U
207-08-9	Benzo(k)fluoranthene	99.	U
50-32-8	Benzo(a)pyrene	99.	U
193-39-5	Indeno(1,2,3-cd)pyrene	99.	U
53-70-3	Dibenz(a,h)anthracene	99.	U
191-24-2	Benzo(g,h,i)perylene	99.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5555 RE

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34440

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	7700.	
91-57-6	2-Methylnaphthalene	660.	J
208-96-8	Acenaphthylene	990.	U
83-32-9	Acenaphthene	360.	J
132-64-9	Dibenzofuran	170.	J
86-73-7	Fluorene	990.	U
85-01-8	Phenanthrene	990.	U
120-12-7	Anthracene	990.	U
206-44-0	Fluoranthene	990.	U
129-00-0	Pyrene	990.	U
56-55-3	Benzo(a)anthracene	990.	U
218-01-9	Chrysene	990.	U
205-99-2	Benzo(b)fluoranthene	990.	U
207-08-9	Benzo(k)fluoranthene	990.	U
50-32-8	Benzo(a)pyrene	990.	U
193-39-5	Indeno(1,2,3-cd)pyrene	990.	U
53-70-3	Dibenz(a,h)anthracene	990.	U
191-24-2	Benzo(g,h,i)perylene	990.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

EXBLK

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34361

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	100.	U
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EXBLK

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34361

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5657

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34332

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	14000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5557

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34332

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.80	60.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.08	200.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.30	200.	J
4.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.63	60.	J
5.	- -	UNKNOWN	16.28	60.	J
6.	- -	UNKNOWN AROMATIC	16.65	100.	J
7.	119-65-3	Isoquinoline (8CI9CI)	17.66	1000.	J
8.	495-10-3	Benzeneacetonitrile, .alpha.	18.17	400.	J
9.	- -	UNKNOWN AROMATIC	18.90	100.	J
10.	91-63-4	Quinoline, 2-methyl- (9CI)	19.37	400.	J
11.	- -	UNKNOWN AROMATIC	19.59	500.	J
12.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.12	700.	J
13.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.38	1000.	J
14.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.99	1000.	J
15.	877-43-0	Quinoline, 2,6-dimethyl- (8C	21.97	1000.	J
16.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.47	900.	J
17.	83-32-9	Acenaphthene (8CI)	23.37	600.	J
18.	132-64-9	Dibenzofuran (8CI9CI)	24.04	700.	J
19.	- -	UNKNOWN AROMATIC	25.36	1000.	J
20.	- -	UNKNOWN AROMATIC	27.94	500.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N...

K5657...DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34369

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	500.	U
95-48-7	Cresols,Total	17000.	D
88-06-2	2,4,6-Trichlorophenol	500.	U
93-76-5	2,4,5-Trichlorophenol	500.	U
87-86-5	Pentachlorophenol	500.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE
X5657 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34369

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

Number TICs found: 19 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	13.77	400.	J
2.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.03	6000.	J
3.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	15.64	4000.	J
4.	- -	UNKNOWN	15.98	800.	J
5.	- -	UNKNOWN	16.21	500.	J
6.	- -	UNKNOWN AROMATIC	16.35	1000.	J
7.	119-65-3	Isoquinoline (8CI9CI)	17.45	20000.	J
8.	495-10-3	Benzeneacetonitrile, .alpha.	17.97	4000.	J
9.	2471-83-2	1H-Indene, 1-ethylidene- (9C	18.87	900.	J
10.	91-63-4	Quinoline, 2-methyl- (9CI)	19.21	4000.	J
11.	- -	UNKNOWN AROMATIC	19.44	600.	J
12.	- -	UNKNOWN AROMATIC	19.98	600.	J
13.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.27	1000.	J
14.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.88	1000.	J
15.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.89	900.	J
16.	13362-80-6	Quinoline, 4,8-dimethyl- (8C	22.40	900.	J
17.	83-32-9	Acenaphthene (8CI)	23.34	600.	J
18.	- -	UNKNOWN AROMATIC	24.01	500.	J
19.	- -	UNKNOWN	25.08	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5658

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34333

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec. Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols, Total	5300.	
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5658

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34333

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 19 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	4.89	1000.	J
2.	1632-73-1	Bicyclo[2.2.1]heptan-2-ol, 1	14.11	600.	J
3.	- -	UNKNOWN	14.99	200.	J
4.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.31	600.	J
5.	507-70-0	Borneol (8CI)	15.68	1000.	J
6.	10482-56-1	3-Cyclohexene-1-methanol, .a	16.47	2000.	J
7.	- -	UNKNOWN	16.53	100.	J
8.	- -	UNKNOWN	17.24	100.	J
9.	119-65-3	Isoquinoline (8CI9CI)	17.59	1000.	J
10.	1885-38-7	2-Propenenitrile, 3-phenyl-,	18.07	300.	J
11.	54004-38-5	Isoquinoline, 7-methyl- (9CI	19.31	900.	J
12.	2451-01-6	cis-Terpin hydrate	19.42	500.	J
13.	- -	UNKNOWN	19.88	900.	J
14.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.35	400.	J
15.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.96	400.	J
16.	- -	UNKNOWN	21.26	400.	J
17.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.47	400.	J
18.	- -	UNKNOWN	22.12	300.	J
19.	- -	UNKNOWN	25.18	300.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

XS659

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34334

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	34.	J
95-48-7	Cresols,Total	21000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5659 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34371

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	25000.	D
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5659 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34371

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/26/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 15 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	9.92	2000.	J
2.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.06	8000.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.67	7000.	J
4.	- -	UNKNOWN AROMATIC	16.38	2000.	J
5.	119-65-3	Isoquinoline (8CI9CI)	17.44	30000.	J
6.	495-10-3	Benzeneacetonitrile, .alpha.	17.97	10000.	J
7.	1687-61-2	Phenol, 2-ethyl-5-methyl- (9	18.03	800.	J
8.	- -	UNKNOWN AROMATIC	18.85	1000.	J
9.	91-63-4	Quinoline, 2-methyl- (9CI)	19.23	10000.	J
10.	134-32-7	1-Naphthalenamine (9CI)	19.68	800.	J
11.	- -	UNKNOWN AROMATIC	19.98	1000.	J
12.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.27	2000.	J
13.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.88	2000.	J
14.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.89	2000.	J
15.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.40	3000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5659

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34448

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	5000.	E
91-57-6	2-Methylnaphthalene	99.	U
208-96-8	Acenaphthylene	99.	U
83-32-9	Acenaphthene	570.	
132-64-9	Dibenzofuran	360.	
86-73-7	Fluorene	280.	
85-01-8	Phenanthrene	300.	
120-12-7	Anthracene	99.	U
206-44-0	Fluoranthene	99.	U
129-00-0	Pyrene	99.	U
56-55-3	Benzo(a)anthracene	99.	U
218-01-9	Chrysene	99.	U
205-99-2	Benzo(b)fluoranthene	99.	U
207-08-9	Benzo(k)fluoranthene	99.	U
50-32-8	Benzo(a)pyrene	99.	U
193-39-5	Indeno(1,2,3-cd)pyrene	99.	U
53-70-3	Dibenz(a,h)anthracene	99.	U
191-24-2	Benzo(g,h,i)perylene	99.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5659 RE

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34441

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/10/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	6500.	
91-57-6	2-Methylnaphthalene	750.	J
208-96-8	Acenaphthylene	990.	U
83-32-9	Acenaphthene	580.	J
132-64-9	Dibenzofuran	320.	J
86-73-7	Fluorene	990.	U
85-01-8	Phenanthrene	990.	U
120-12-7	Anthracene	990.	U
206-44-0	Fluoranthene	990.	U
129-00-0	Pyrene	990.	U
56-55-3	Benzo(a)anthracene	990.	U
218-01-9	Chrysene	990.	U
205-99-2	Benzo(b)fluoranthene	990.	U
207-08-9	Benzo(k)fluoranthene	990.	U
50-32-8	Benzo(a)pyrene	990.	U
193-39-5	Indeno(1,2,3-cd)pyrene	990.	U
53-70-3	Dibenz(a,h)anthracene	990.	U
191-24-2	Benzo(g,h,i)perylene	990.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5639

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34303

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/20/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	20000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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EPA SAMPLE NO.

X5639

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34303

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/20/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	13.85	300.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.15	4000.	J
3.	620-17-7	Phenol, 3-ethyl- (9CI)	15.72	3000.	J
4.	91-20-3	Naphthalene (ACN)(DOT)(8CI9C	16.03	500.	J
5.	10482-56-1	3-Cyclohexene-1-methanol, .a	16.33	700.	J
6.	95-65-8	Phenol, 3,4-dimethyl- (9CI)	16.49	500.	J
7.	- -	UNKNOWN AROMATIC	17.57	4000.	J
8.	- -	UNKNOWN AROMATIC	18.10	1000.	J
9.	91-63-4	Quinoline, 2-methyl- (9CI)	19.30	1000.	J
10.	- -	UNKNOWN HYDROCARBON	19.52	400.	J
11.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.05	300.	J
12.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.36	400.	J
13.	- -	UNKNOWN	24.91	300.	J
14.	86-73-7	9H-Fluorene (9CI)	25.46	800.	J
15.	- -	UNKNOWN	27.95	500.	J
16.	86-74-8	9H-Carbazole (9CI)	30.40	300.	J
17.	- -	UNKNOWN	32.43	2000.	J
18.	- -	UNKNOWN PHTHALATE	32.86	800.	J
19.	- -	UNKNOWN	33.49	600.	J
20.	- -	UNKNOWN	33.67	2000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5639 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34311

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	500.	U
95-48-7	Cresols,Total	32000.	ED
88-06-2	2,4,6-Trichlorophenol	500.	U
93-76-5	2,4,5-Trichlorophenol	500.	U
87-86-5	Pentachlorophenol	500.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SA. _____ K5639 _____

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1043E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34311

Level: (low/med) LOW Date Received: 8/31/9

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/9

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5

Number TICs found: 18 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.
1.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	13.77	400.
2.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.05	6000.
3.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	15.61	6000.
4.	- -	UNKNOWN	16.22	1000.
5.	95-65-8	Phenol, 3,4-dimethyl- (9CI)	16.30	400.
6.	119-65-3	Isoquinoline (8CI9CI)	17.42	6000.
7.	- -	UNKNOWN AROMATIC	17.95	1000.
8.	91-63-4	Quinoline, 2-methyl- (9CI)	19.21	1000.
9.	- -	UNKNOWN AROMATIC	19.43	300.
10.	- -	UNKNOWN AROMATIC	19.98	300.
11.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.26	500.
12.	611-32-5	Quinoline, 8-methyl- (8CI9CI	20.87	200.
13.	- -	UNKNOWN AROMATIC	21.89	200.
14.	1453-06-1	Benzenebutanoic acid, 2,5-di	25.23	6000.
15.	86-74-8	9H-Carbazole (9CI)	30.36	400.
16.	- -	UNKNOWN AROMATIC	32.26	1000.
17.	- -	UNKNOWN	32.69	600.
18.	- -	UNKNOWN AROMATIC	33.44	3000.
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5640

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34318

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	22000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

FORM I SV-1 1/87 Rev.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5640

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34318

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	13.83	300.	J
2.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	15.13	3000.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.68	2000.	J
4.	- -	UNKNOWN	15.74	500.	J
5.	- -	UNKNOWN AROMATIC	16.01	500.	J
6.	- -	UNKNOWN AROMATIC	16.27	600.	J
7.	620-17-7	Phenol, 3-ethyl- (9CI)	16.47	400.	J
8.	119-65-3	Isoquinoline (8CI9CI)	17.55	4000.	J
9.	- -	UNKNOWN AROMATIC	18.06	1000.	J
10.	91-63-4	Quinoline, 2-methyl- (9CI)	19.28	900.	J
11.	- -	UNKNOWN AROMATIC	19.46	300.	J
12.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.31	400.	J
13.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.39	300.	J
14.	- -	UNKNOWN	25.57	5000.	J
15.	- -	UNKNOWN	25.65	700.	J
16.	- -	UNKNOWN AROMATIC	27.11	400.	J
17.	- -	UNKNOWN	27.93	300.	J
18.	- -	UNKNOWN	32.37	1000.	J
19.	- -	UNKNOWN PHTHALATE	32.76	400.	J
20.	- -	UNKNOWN	33.51	900.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5659

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1248C SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34334

Level: (low/med) LOW Date Received: 9/ 5/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 9/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 19 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	108-47-4	Pyridine, 2,4-dimethyl- (9CI	8.07	1000.	J
2.	- -	UNKNOWN	15.12	200.	J
3.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.62	800.	J
4.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	16.25	900.	J
5.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	16.99	200.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.80	500.	J
7.	495-10-3	Benzeneacetonitrile, .alpha.	18.31	1000.	J
8.	698-71-5	Phenol, 3-ethyl-5-methyl- (9	18.43	200.	J
9.	- -	UNKNOWN AROMATIC	18.67	100.	J
10.	- -	UNKNOWN AROMATIC	18.94	200.	J
11.	91-63-4	Quinoline, 2-methyl- (9CI)	19.49	1000.	J
12.	- -	UNKNOWN AROMATIC	19.77	900.	J
13.	1125-80-0	Isoquinoline, 3-methyl- (8CI	19.87	900.	J
14.	1125-80-0	Isoquinoline, 3-methyl- (8CI	20.18	1000.	J
15.	- -	UNKNOWN	20.32	900.	J
16.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.48	2000.	J
17.	612-58-8	Quinoline, 3-methyl- (8CI9CI	21.07	3000.	J
18.	93-37-8	Quinoline, 2,7-dimethyl- (8C	22.05	3000.	J
19.	13362-80-6	Quinoline, 4,8-dimethyl- (8C	22.58	2000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5640 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34352

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	43000.	D
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5640 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34352

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	14.99	5000.	J
2.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.56	6000.	J
3.	- -	UNKNOWN	15.95	800.	J
4.	- -	UNKNOWN	16.19	800.	J
5.	119-65-3	Isoquinoline (8CI9CI)	17.37	7000.	J
6.	- -	UNKNOWN AROMATIC	17.92	1000.	J
7.	91-63-4	Quinoline, 2-methyl- (9CI)	19.18	800.	J
8.	- -	UNKNOWN AROMATIC	25.20	7000.	J
9.	- -	UNKNOWN	32.25	600.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5641

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34319

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	23000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5641

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34319

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 19 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.15	1000.	J
2.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	15.70	600.	J
3.	- -	UNKNOWN	16.03	100.	J
4.	- -	UNKNOWN AROMATIC	16.29	100.	J
5.	- -	UNKNOWN AROMATIC	16.56	200.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.59	1000.	J
7.	- -	UNKNOWN AROMATIC	18.10	400.	J
8.	91-63-4	Quinoline, 2-methyl- (9CI)	19.30	400.	J
9.	- -	UNKNOWN AROMATIC	20.05	400.	J
10.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.33	500.	J
11.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.94	400.	J
12.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.94	300.	J
13.	- -	UNKNOWN AROMATIC	25.47	2000.	J
14.	- -	UNKNOWN	26.08	400.	J
15.	- -	UNKNOWN	27.16	700.	J
16.	- -	UNKNOWN AROMATIC	30.30	400.	J
17.	- -	UNKNOWN	31.22	400.	J
18.	- -	UNKNOWN AROMATIC	32.33	500.	J
19.	- -	UNKNOWN	33.47	500.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5641 CL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34353

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	42000.	D
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X5641 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34353

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.75	600.	J
2.	95-65-8	Phenol, 3,4-dimethyl- (9CI)	14.99	8000.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.58	7000.	J
4.	119-65-3	Isoquinoline (8CI9CI)	17.39	10000.	J
5.	- -	UNKNOWN AROMATIC	17.92	2000.	J
6.	91-63-4	Quinoline, 2-methyl- (9CI)	19.17	2000.	J
7.	- -	UNKNOWN	25.10	2000.	J
8.	- -	UNKNOWN	27.07	600.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5642

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34320

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	24000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5642

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34320

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.88	200.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.20	1000.	J
3.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	15.26	100.	J
4.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.74	600.	J
5.	91-20-3	Naphthalene (ACN)(DOT)(8CI9C	16.03	200.	J
6.	- -	UNKNOWN AROMATIC	16.58	200.	J
7.	119-65-3	Isoquinoline (8CI9CI)	17.63	1000.	J
8.	- -	UNKNOWN AROMATIC	18.12	400.	J
9.	91-63-4	Quinoline, 2-methyl- (9CI)	19.32	400.	J
10.	4748-78-1	Benzaldehyde, 4-ethyl- (9CI)	19.56	80.	J
11.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.09	500.	J
12.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.35	600.	J
13.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.96	500.	J
14.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.96	500.	J
15.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.47	500.	J
16.	- -	UNKNOWN	24.07	400.	J
17.	- -	UNKNOWN AROMATIC	27.16	800.	J
18.	- -	UNKNOWN	27.95	300.	J
19.	- -	UNKNOWN AROMATIC	28.03	300.	J
20.	86-74-8	9H-Carbazole (9CI)	30.39	300.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5642 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34354

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	58000.	ED
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X5642 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34354

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.76	800.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.00	10000.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.59	8000.	J
4.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	16.20	600.	J
5.	95-65-8	Phenol, 3,4-dimethyl- (9CI)	16.28	800.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.40	10000.	J
7.	- -	UNKNOWN AROMATIC	17.92	1000.	J
8.	91-63-4	Quinoline, 2-methyl- (9CI)	19.19	2000.	J
9.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.24	600.	J
10.	- -	UNKNOWN	27.07	800.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5643

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34304

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/20/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	27000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5643

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34304

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/20/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.82	400.	J
2.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.12	4000.	J
3.	95-65-8	Phenol, 3,4-dimethyl- (9CI)	15.67	3000.	J
4.	- -	UNKNOWN	15.75	1000.	J
5.	- -	UNKNOWN	16.28	600.	J
6.	620-17-7	Phenol, 3-ethyl- (9CI)	16.46	600.	J
7.	119-65-3	Isoquinoline (8CI9CI)	17.54	4000.	J
8.	- -	UNKNOWN AROMATIC	18.07	1000.	J
9.	- -	UNKNOWN AROMATIC	19.24	1000.	J
10.	- -	UNKNOWN AROMATIC	19.47	300.	J
11.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.32	600.	J
12.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.93	400.	J
13.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.42	600.	J
14.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.92	400.	J
15.	- -	UNKNOWN AROMATIC	25.52	6000.	J
16.	- -	UNKNOWN AROMATIC	27.16	1000.	J
17.	- -	UNKNOWN	27.96	800.	J
18.	86-74-8	9H-Carbazole (9CI)	30.40	400.	J
19.	- -	UNKNOWN AROMATIC	32.33	500.	J
20.	- -	UNKNOWN	33.44	400.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X3643 SL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34312

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	46000.	D
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE N...: X5643 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34312

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 13 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.76	600.	J
2.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	15.02	9000.	J
3.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.59	9000.	J
4.	- -	UNKNOWN AROMATIC	16.22	1000.	J
5.	95-65-8	Phenol, 3,4-dimethyl- (9CI)	16.30	600.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.42	9000.	J
7.	- -	UNKNOWN AROMATIC	17.94	2000.	J
8.	- -	UNKNOWN	19.14	1000.	J
9.	612-58-8	Quinoline, 3-methyl- (8CI9CI	19.20	1000.	J
10.	54004-38-5	Isoquinoline, 7-methyl- (9CI	20.26	600.	J
11.	- -	UNKNOWN AROMATIC	25.19	6000.	J
12.	- -	UNKNOWN AROMATIC	27.10	2000.	J
13.	86-74-8	9H-Carbazole (9CI)	30.35	600.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5644

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34323

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	1600.	
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5644

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34323

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	591-22-0	Pyridine, 3,5-dimethyl- (9CI	8.01	700.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.07	1000.	J
3.	- -	UNKNOWN	15.54	300.	J
4.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.70	2000.	J
5.	- -	UNKNOWN	15.99	600.	J
6.	- -	UNKNOWN	16.21	300.	J
7.	620-17-7	Phenol, 3-ethyl- (9CI)	16.41	500.	J
8.	119-65-3	Isoquinoline (8CI9CI)	17.49	5000.	J
9.	- -	UNKNOWN AROMATIC	17.98	900.	J
10.	3855-26-3	Phenol, 2-ethyl-4-methyl- (9	18.06	400.	J
11.	91-63-4	Quinoline, 2-methyl- (9CI)	19.24	1000.	J
12.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.27	500.	J
13.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.88	400.	J
14.	- -	UNKNOWN AROMATIC	21.35	300.	J
15.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.90	300.	J
16.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.40	300.	J
17.	- -	UNKNOWN AROMATIC	25.17	500.	J
18.	- -	UNKNOWN	27.83	200.	J
19.	86-74-8	9H-Carbazole (9CI)	30.36	300.	J
20.	- -	UNKNOWN	31.20	300.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5645

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34324

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	12000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X5645

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34324

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.06	2000.	J
2.	464-45-9	Bicyclo[2.2.1]heptan-2-ol, 1	15.59	1000.	J
3.	- -	UNKNOWN	16.00	500.	J
4.	10482-56-1	3-Cyclohexene-1-methanol, .a	16.26	800.	J
5.	119-65-3	Isoquinoline (8CI9CI)	17.48	3000.	J
6.	- -	UNKNOWN AROMATIC	17.99	700.	J
7.	- -	UNKNOWN	19.19	400.	J
8.	91-63-4	Quinoline, 2-methyl- (9CI)	19.23	400.	J
9.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.40	300.	J
10.	- -	UNKNOWN	25.44	1000.	J
11.	- -	UNKNOWN	25.50	400.	J
12.	- -	UNKNOWN AROMATIC	26.80	300.	J
13.	- -	UNKNOWN AROMATIC	27.13	400.	J
14.	- -	UNKNOWN	27.92	300.	J
15.	- -	UNKNOWN AROMATIC	30.32	600.	J
16.	86-74-8	9H-Carbazole (9CI)	30.38	200.	J
17.	- -	UNKNOWN	31.27	2000.	J
18.	- -	UNKNOWN	32.45	2000.	J
19.	- -	UNKNOWN	32.84	800.	J
20.	- -	UNKNOWN AROMATIC	33.55	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5645 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34355

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	500.	U
95-48-7	Cresols,Total	16000.	D
88-06-2	2,4,6-Trichlorophenol	500.	U
93-76-5	2,4,5-Trichlorophenol	500.	U
87-86-5	Pentachlorophenol	500.	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5645 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34355

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

Number TICs found: 12 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	14.99	3000.	J
2.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.56	3000.	J
3.	- -	UNKNOWN	16.19	800.	J
4.	119-65-3	Isoquinoline (8CI9CI)	17.37	4000.	J
5.	- -	UNKNOWN AROMATIC	17.92	500.	J
6.	- -	UNKNOWN AROMATIC	19.18	300.	J
7.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.33	500.	J
8.	- -	UNKNOWN AROMATIC	25.19	3000.	J
9.	- -	UNKNOWN AROMATIC	27.07	300.	J
10.	- -	UNKNOWN	31.19	2000.	J
11.	- -	UNKNOWN	32.29	2000.	J
12.	- -	UNKNOWN AROMATIC	33.41	700.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5646

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34305

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/20/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	19000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
X5646

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34305

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/20/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.84	500.	J
2.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.12	5000.	J
3.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	15.69	5000.	J
4.	- -	UNKNOWN	16.30	1000.	J
5.	620-17-7	Phenol, 3-ethyl- (9CI)	16.47	600.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.54	5000.	J
7.	- -	UNKNOWN AROMATIC	18.07	1000.	J
8.	91-63-4	Quinoline, 2-methyl- (9CI)	19.29	1000.	J
9.	- -	UNKNOWN AROMATIC	19.49	400.	J
10.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.32	300.	J
11.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.93	200.	J
12.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.42	200.	J
13.	- -	UNKNOWN AROMATIC	24.06	200.	J
14.	- -	UNKNOWN	25.48	2000.	J
15.	- -	UNKNOWN AROMATIC	27.17	400.	J
16.	- -	UNKNOWN AROMATIC	27.96	400.	J
17.	- -	UNKNOWN	29.50	300.	J
18.	86-74-8	9H-Carbazole (9CI)	30.42	300.	J
19.	- -	UNKNOWN	32.35	400.	J
20.	- -	UNKNOWN	33.50	600.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5646 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34313

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
110-86-1	Pyridine	1000.	U	
95-48-7	Cresols,Total	32000.		D
88-06-2	2,4,6-Trichlorophenol	1000.	U	
93-76-5	2,4,5-Trichlorophenol	1000.	U	
87-86-5	Pentachlorophenol	1000.	U	

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5646 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34313

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 7 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.00	6000.	J
2.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.59	6000.	J
3.	- -	UNKNOWN	16.22	1000.	J
4.	119-65-3	Isoquinoline (8CI9CI)	17.38	7000.	J
5.	- -	UNKNOWN AROMATIC	17.92	1000.	J
6.	91-63-4	Quinoline, 2-methyl- (9CI)	19.18	1000.	J
7.	- -	UNKNOWN AROMATIC	25.13	4000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

K5647

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34310

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 6/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	250.	
95-48-7	Cresols,Total	12000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5647

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34310

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 6/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	4.86	500.	J
2.	108-47-4	Pyridine, 2,4-dimethyl- (9CI	8.13	1000.	J
3.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.16	3000.	J
4.	- -	UNKNOWN	15.62	1000.	J
5.	- -	UNKNOWN AROMATIC	15.77	1000.	J
6.	122-00-9	Ethanone, 1-(4-methylphenyl)	16.05	700.	J
7.	10482-56-1	3-Cyclohexene-1-methanol, .a	16.29	1000.	J
8.	- -	UNKNOWN AROMATIC	16.48	500.	J
9.	119-65-3	Isoquinoline (8CI9CI)	17.55	5000.	J
10.	- -	UNKNOWN AROMATIC	18.04	1000.	J
11.	91-63-4	Quinoline, 2-methyl- (9CI)	19.28	2000.	J
12.	91-62-3	Quinoline, 6-methyl- (8CI9CI	20.31	200.	J
13.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.92	100.	J
14.	- -	UNKNOWN AROMATIC	26.77	300.	J
15.	- -	UNKNOWN	27.14	400.	J
16.	- -	UNKNOWN AROMATIC	30.34	500.	J
17.	- -	UNKNOWN	30.41	300.	J
18.	- -	UNKNOWN	30.61	200.	J
19.	- -	UNKNOWN	31.28	2000.	J
20.	- -	UNKNOWN	32.33	400.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5647 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34314

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 6/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	16000.	D
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X5647 01

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34314

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 6/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 8 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	8.03	800.	J
2.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	14.99	3000.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.58	3000.	J
4.	- -	UNKNOWN	16.21	800.	J
5.	119-65-3	Isoquinoline (8CI9CI)	17.39	7000.	J
6.	- -	UNKNOWN	17.91	800.	J
7.	91-63-4	Quinoline, 2-methyl- (9CI)	19.17	800.	J
8.	- -	UNKNOWN	31.21	2000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5648

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34306

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/20/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	30.	J
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5648

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34306

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/20/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 11 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	14.77	80.	J
2.	- -	UNKNOWN	16.03	1000.	J
3.	536-60-7	Benzenemethanol, 4-(1-methyl	16.11	500.	J
4.	- -	UNKNOWN AROMATIC	16.72	700.	J
5.	- -	UNKNOWN	18.45	80.	J
6.	- -	UNKNOWN	19.34	200.	J
7.	- -	UNKNOWN	19.62	700.	J
8.	- -	UNKNOWN	19.75	200.	J
9.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.43	900.	J
10.	- -	UNKNOWN PHTHALATE	37.86	100.	J
11.	- -	UNKNOWN	39.95	60.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5649

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34325

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	310.	
95-48-7	Cresols,Total	36000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: K5649

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34325

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.88	200.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.20	1000.	J
3.	- -	UNKNOWN	15.67	400.	J
4.	10482-56-1	3-Cyclohexene-1-methanol, .a	16.36	200.	J
5.	- -	UNKNOWN AROMATIC	16.59	300.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.64	1000.	J
7.	- -	UNKNOWN AROMATIC	18.15	500.	J
8.	2416-94-6	Phenol, 2,3,6-trimethyl- (8C	18.41	80.	J
9.	91-57-6	Naphthalene, 2-methyl- (8CI9	18.90	80.	J
10.	91-63-4	Quinoline, 2-methyl- (9CI)	19.35	400.	J
11.	- -	UNKNOWN AROMATIC	19.55	200.	J
12.	- -	UNKNOWN AROMATIC	20.08	700.	J
13.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.38	700.	J
14.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.97	700.	J
15.	93-37-8	Quinoline, 2,7-dimethyl- (8C	21.97	500.	J
16.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.48	600.	J
17.	135-19-3	2-Naphthalenol (9CI)	24.06	800.	J
18.	- -	UNKNOWN	25.46	1000.	J
19.	- -	UNKNOWN	27.94	600.	J
20.	- -	UNKNOWN	32.41	2000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

K5649 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34356

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	53000.	ED
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X5649 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34356

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 13 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.74	1000.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.00	10000.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.59	10000.	J
4.	- -	UNKNOWN	15.96	2000.	J
5.	- -	UNKNOWN	16.20	1000.	J
6.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	16.28	800.	J
7.	119-65-3	Isoquinoline (8CI9CI)	17.38	10000.	J
8.	- -	UNKNOWN AROMATIC	17.93	3000.	J
9.	91-63-4	Quinoline, 2-methyl- (9CI)	19.19	2000.	J
10.	- -	UNKNOWN AROMATIC	19.96	600.	J
11.	54004-38-5	Isoquinoline, 7-methyl- (9CI	20.25	600.	J
12.	- -	UNKNOWN	25.12	5000.	J
13.	- -	UNKNOWN	32.25	600.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5650

b Name: ESECO Contract:

b Code: ESECO Case No.: 1243E SAS No.: SDG No.:

trix: (soil/water) WATER Lab Sample ID:

mple wt/vol: 100.0 (g/mL) ML Lab File ID: 34326

vel: (low/med) LOW Date Received: 8/31/91

Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

traction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

C Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	15000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5650

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34326

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	13.82	700.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.14	7000.	J
3.	464-45-9	Bicyclo[2.2.1]heptan-2-ol, 1	15.64	3000.	J
4.	- -	UNKNOWN AROMATIC	16.27	1000.	J
5.	- -	UNKNOWN AROMATIC	16.46	700.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.53	6000.	J
7.	- -	UNKNOWN AROMATIC	18.06	2000.	J
8.	91-57-6	Naphthalene, 2-methyl- (8CI9	18.87	700.	J
9.	91-63-4	Quinoline, 2-methyl- (9CI)	19.28	2000.	J
10.	- -	UNKNOWN AROMATIC	19.46	800.	J
11.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.03	300.	J
12.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.33	300.	J
13.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.92	300.	J
14.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.41	400.	J
15.	83-32-9	Acenaphthene (8CI)	23.34	300.	J
16.	- -	UNKNOWN	24.03	400.	J
17.	1453-06-1	Benzenebutanoic acid, 2,5-di	25.35	1000.	J
18.	- -	UNKNOWN	31.24	900.	J
19.	- -	UNKNOWN	32.31	500.	J
20.	- -	UNKNOWN AROMATIC	33.49	800.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5650 CL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34357

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	500.	U
95-48-7	Cresols,Total	24000.	ED
88-06-2	2,4,6-Trichlorophenol	500.	U
93-76-5	2,4,5-Trichlorophenol	500.	U
87-86-5	Pentachlorophenol	500.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: XS650 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34357

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 5.00

Number TICs found: 19 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.75	400.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.01	6000.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.58	6000.	J
4.	- -	UNKNOWN AROMATIC	16.21	1000.	J
5.	- -	UNKNOWN AROMATIC	16.29	300.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.38	5000.	J
7.	1687-61-2	Phenol, 2-ethyl-5-methyl- (9	17.97	1000.	J
8.	- -	UNKNOWN AROMATIC	18.28	300.	J
9.	- -	UNKNOWN AROMATIC	18.84	400.	J
10.	- -	UNKNOWN	19.13	600.	J
11.	91-63-4	Quinoline, 2-methyl- (9CI)	19.19	600.	J
12.	- -	UNKNOWN AROMATIC	19.41	300.	J
13.	- -	UNKNOWN AROMATIC	20.25	300.	J
14.	121-33-5	Benzaldehyde, 4-hydroxy-3-me	21.33	300.	J
15.	83-32-9	Acenaphthene (8CI)	23.32	300.	J
16.	- -	UNKNOWN	23.99	300.	J
17.	- -	UNKNOWN	25.09	1000.	J
18.	- -	UNKNOWN	31.20	1000.	J
19.	- -	UNKNOWN	33.38	300.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5651

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34327

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	46000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	40.	J

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5651

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34327

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/24/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 19 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	13.94	200.	J
2.	95-87-4	Phenol, 2,5-dimethyl- (9CI)	15.28	1000.	J
3.	- -	UNKNOWN AROMATIC	15.38	100.	J
4.	91-20-3	Naphthalene (ACN)(DOT)(8CI9C	16.09	100.	J
5.	620-17-7	Phenol, 3-ethyl- (9CI)	16.70	200.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.72	1000.	J
7.	- -	UNKNOWN AROMATIC	18.25	500.	J
8.	2416-94-6	Phenol, 2,3,6-trimethyl- (8C	18.37	60.	J
9.	83-33-0	1H-Inden-1-one, 2,3-dihydro-	18.67	60.	J
10.	91-63-4	Quinoline, 2-methyl- (9CI)	19.40	300.	J
11.	- -	UNKNOWN AROMATIC	19.63	700.	J
12.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.16	800.	J
13.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.44	1000.	J
14.	612-58-8	Quinoline, 3-methyl- (8CI9CI	21.03	900.	J
15.	93-37-8	Quinoline, 2,7-dimethyl- (8C	22.01	700.	J
16.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.53	800.	J
17.	- -	UNKNOWN	24.12	500.	J
18.	- -	UNKNOWN AROMATIC	27.21	1000.	J
19.	1689-77-6	Thiophene, 2,5-bis(1,1-dimet	27.98	700.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5651 PE

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34358

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	84000.	E
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE ID:
X5651 RE

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34358

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 16 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.78	1000.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.02	10000.	J
3.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.61	10000.	J
4.	108-68-9	Phenol, 3,5-dimethyl- (9CI)	16.22	1000.	J
5.	95-65-8	Phenol, 3,4-dimethyl- (9CI)	16.32	1000.	J
6.	119-65-3	Isoquinoline (8CI9CI)	17.42	10000.	J
7.	495-10-3	Benzeneacetonitrile, .alpha.	17.96	4000.	J
8.	91-63-4	Quinoline, 2-methyl- (9CI)	19.20	2000.	J
9.	- -	UNKNOWN HYDROCARBON	19.42	600.	J
10.	- -	UNKNOWN HYDROCARBON	19.97	800.	J
11.	7661-55-4	Quinoline, 5-methyl- (8CI9CI	20.26	1000.	J
12.	612-58-8	Quinoline, 3-methyl- (8CI9CI	20.87	600.	J
13.	877-43-0	Quinoline, 2,6-dimethyl- (8C	21.88	600.	J
14.	1721-89-7	Quinoline, 2,3-dimethyl- (8C	22.39	600.	J
15.	- -	UNKNOWN	24.01	600.	J
16.	- -	UNKNOWN	27.08	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5652

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34315

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	100.	U
95-48-7	Cresols,Total	19000.	E
88-06-2	2,4,6-Trichlorophenol	100.	U
93-76-5	2,4,5-Trichlorophenol	100.	U
87-86-5	Pentachlorophenol	100.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

X5652

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34315

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/23/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	90-00-6	Phenol, 2-ethyl- (9CI)	14.75	300.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.18	3000.	J
3.	- -	UNKNOWN AROMATIC	15.79	2000.	J
4.	- -	UNKNOWN AROMATIC	16.06	300.	J
5.	95-65-8	Phenol, 3,4-dimethyl- (9CI)	16.38	700.	J
6.	697-82-5	Phenol, 2,3,5-trimethyl- (8C	16.60	300.	J
7.	1687-61-2	Phenol, 2-ethyl-5-methyl- (9	17.31	400.	J
8.	88-69-7	Phenol, 2-(1-methylethyl)- (	17.58	1000.	J
9.	2219-73-0	Phenol, 4-ethyl-2-methyl- (9	17.66	500.	J
10.	3855-26-3	Phenol, 2-ethyl-4-methyl- (9	18.15	900.	J
11.	496-78-6	Phenol, 2,4,5-trimethyl- (8C	18.29	400.	J
12.	2416-94-6	Phenol, 2,3,6-trimethyl- (8C	18.39	200.	J
13.	91-63-4	Quinoline, 2-methyl- (9CI)	19.35	500.	J
14.	- -	UNKNOWN AROMATIC	19.51	500.	J
15.	1470-94-6	1H-Inden-5-ol, 2,3-dihydro-	20.08	1000.	J
16.	- -	UNKNOWN AROMATIC	20.24	500.	J
17.	13362-80-6	Quinoline, 4,8-dimethyl- (8C	22.50	400.	J
18.	- -	UNKNOWN	25.46	3000.	J
19.	- -	UNKNOWN	32.43	2000.	J
20.	- -	UNKNOWN PHTHALATE	32.88	1000.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X5652 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34351

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec._____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-86-1	Pyridine	1000.	U
95-48-7	Cresols,Total	32000.	D
88-06-2	2,4,6-Trichlorophenol	1000.	U
93-76-5	2,4,5-Trichlorophenol	1000.	U
87-86-5	Pentachlorophenol	1000.	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: X5652 DL

Lab Name: ESECO Contract:

Lab Code: ESECO Case No.: 1243E SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID:

Sample wt/vol: 100.0 (g/mL) ML Lab File ID: 34351

Level: (low/med) LOW Date Received: 8/31/91

% Moisture: not dec. 100. dec.____ Date Extracted: 9/ 5/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 9/25/91

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 10.00

Number TICs found: 13 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	576-26-1	Phenol, 2,6-dimethyl- (9CI)	13.76	600.	J
2.	105-67-9	Phenol, 2,4-dimethyl- (9CI)	15.01	10000.	J
3.	- -	UNKNOWN AROMATIC	15.50	2000.	J
4.	526-75-0	Phenol, 2,3-dimethyl- (9CI)	15.58	7000.	J
5.	- -	UNKNOWN	15.97	600.	J
6.	- -	UNKNOWN	16.21	2000.	J
7.	- -	UNKNOWN	17.15	800.	J
8.	119-65-3	Isoquinoline (8CI9CI)	17.39	4000.	J
9.	- -	UNKNOWN AROMATIC	17.98	3000.	J
10.	- -	UNKNOWN	19.42	800.	J
11.	- -	UNKNOWN	19.95	1000.	J
12.	- -	UNKNOWN	25.11	2000.	J
13.	- -	UNKNOWN	32.26	800.	J
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